

**HUMAN RESOURCE SKILLS
NEEDS ASSESSMENT
FOR PRIMARY AGRICULTURE PRODUCTION SECTOR**

Final Report Submitted to:

Saskatchewan Learning

Formerly Post Secondary Education and Skills Training

Submitted by:

Saskatchewan Agriculture Community Training Advisory Committee

a committee of

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Throughout this report, the term 'agribusiness manager' includes anyone involved in the business of agriculture, including farmers, producers and processors.

EXECUTIVE SUMMARY

Saskatchewan's agriculture sector is comprised of a diverse set of industries and a diverse group of primary producers. Overall, the sector involves approximately 41,590 farms with sales of over \$10,000 and generates sales of \$5 billion annually. Primary agriculture production includes crops, livestock, poultry, animal products, greenhouse and nursery, Christmas tree and honey farms. While the sector has diversified over the past twenty years, it continues to be dominated by the crop production industry, which accounted for 71% of market receipts in 2001. However, the other sectors have gained strength as farms have diversified to gain a competitive advantage.

Saskatchewan's primary agriculture sector is in transition. This transition is largely driven by fundamental changes within the sector. In 1995, the Crow Benefit was removed and Saskatchewan farmers were required to pay the full cost of moving their export grains, oilseeds and specialty crops to port. This had the immediate impact of lowering the value of the crops produced by the amount of the former transportation subsidy. In effect, Saskatchewan became the low price point for the production of grains, oilseeds and specialty crops in western Canada.

The loss of the Crow Benefit has discouraged the production of low-value crops for export and encouraged producers to seek higher value crops. The relative reduction in the prices of grains, oilseeds and specialty crops means the province is ideally suited for livestock production and certain types of grain processing. It also necessitates larger farms in order to generate the returns necessary to be economically sustainable.

While the transition away from export grains and towards specialty crops, livestock production and processing will happen slowly – it is and will continue to happen. This transition will have a major impact on the agricultural sector labour requirements – both in terms of the size of the labour force and the skills required. For example, a shift towards large-scale livestock production will require workers skilled in animal agriculture.

With this in mind, an interdepartmental committee consisting of representatives from the provincial departments of Learning (formerly Post Secondary Education and Skills Training - PSEST), Industry and Resources (formerly Economic and Co-operative Development), Saskatchewan Agriculture, Food and Rural Revitalization (SAFRR) met to discuss the need for information on skill requirements associated with primary agriculture in Saskatchewan with a view to assess the need for a human resource development plan. Post Secondary Education had funds available to work with industry groups to assess training needs. While government partners could be involved in the process, an industry steering group was needed to "sponsor" and direct the study. Conducting this study at this time would also complement the Action Committee on the Rural Economy (ACRE) process. After some discussion it was decided that the Saskatchewan Agriculture Community Training Advisory Committee (SACTAC) of Saskatchewan Council for Community Development (SCCD) would be the most

appropriate "sponsor" for the study. Some of the reasons for this decision included the fact that Linda Pipke, SCCD Executive Director was a member of the ACRE executive and that the study objectives were an appropriate match for the aims and objectives of SCCD and the mission and goals of the SACTAC.

The SCCD aim is to be a catalyst for community co-operation, empowerment, and development in Saskatchewan. A premise of the Council's objectives is that the Saskatchewan community can be served best when the organizational members of the Council maintain and share an awareness of local and regional needs and priorities. The objectives of the Saskatchewan Council for Community Development are:

1. To assemble and distribute information on community empowerment and development in Saskatchewan.
2. To identify development challenges and opportunities common to the collaborating stakeholders.
3. To support and promote appropriate collaborative action, innovative approaches, options and partnerships for community development.

Saskatchewan Agriculture Community Training Advisory Committee (SACTAC) is a committee of the Saskatchewan Council for Community Development (SCCD). The SACTAC mission is to empower and strengthen Saskatchewan agriculture and its communities by developing and promoting training strategies through the collaboration and coordination of the activities of agriculture labour market partners. The goals of SACTAC are:

1. To develop and implement a process to document training needs of agricultural community stakeholders.
2. To develop a long term, comprehensive training strategy to meet documented needs.
3. To promote training strategy development.
4. To increase agricultural communities' access to an equitable share of training resources.

The Saskatchewan Council for Community Development (SCCD) led the Study Sponsor Group. SCCD was responsible for assembling the Study Sponsor Group consisting of a broad cross section of the relevant stakeholders associated with primary agriculture and rural Saskatchewan. The Study Sponsor Group members are:

Jim Birch	Saskatchewan Agriculture, Food and Rural Revitalization
Darlene Gosling	Saskatchewan Women's Agricultural Network
Bob Guest	Disabled Farmers / SACTAC
Chris Hale	Saskatchewan Flax Development Committee
Dean Hall	Saskatchewan Labour Force Development Board
Gladys Hill	Saskatchewan Learning
Bruce Hobin	Extension Division, University of Saskatchewan
Louis Hradecki	Saskatchewan Council for Community Development
Wolfgang Langenbacher	Saskatchewan Institute of Applied Science and Technology
Mary Mattila	North West Regional College
Debbie Miller	Saskatchewan Organic Directorate

Saskatchewan Council for Community Development

Valerie Mushinski	Cumberland Regional College
Calvin Parsons	Saskatchewan Beekeepers Association
Mary Petersen	Prairie Swine Centre
Linda Pipke	Saskatchewan Council for Community Development
Lyle Selinger	Saskatchewan Agriculture, Food and Rural Revitalization
Clarice Springford	Agriculture in the Classroom
Brenda Stefanson	Agriculture Institute of Management in Saskatchewan
Gordon Stephenson	Western Beef Development Centre
Arnold Taylor	Saskatchewan Organic Directorate

This Group provided guidance and input into the methodology and design of the study and were an ongoing source of information throughout the project. An external consultant was hired to conduct the study.

The study was designed to:

- Develop an inventory of similar studies in related sectors/industries;
- Identify a current inventory of available skills;
- Assess the skill needs (both current and future);
- Assess the available training;
- Determine the current and future gaps in training; and
- Develop a human resources development plan for the sector.

At the direction of the Study Sponsor Group, the focus was narrowed and the study then targeted the current and future human resource needs of the agribusiness manager* and the skills required in managing an agricultural operation.

Hodgins & Company Management Consultants Inc. was contracted to undertake this study. The team assembled by Hodgins & Company included:

- | | |
|--|--|
| ☐ Mary Ellen Hodgins | Hodgins & Company Management
Consultants Inc. |
| ☐ Pauline Molder | Molder & Associates |
| ☐ Carol Ann Patterson | The Pathfinders Research & Management Ltd. |
| ☐ Jean Toews | Jean Toews Consulting |

The specific objectives were to:

- ☐ Identify inconsistencies between the current inventory and level of skills within the agricultural labour force and the current and future requirements of the sector; and

* *The term 'agribusiness manager' includes anyone involved in the business of agriculture, including farmers, producers and processors.*

- ❑ Develop recommendations and an action plan to address the gaps that are identified.

The methodology used for this project included:

- ❑ A literature search;
- ❑ 30 interviews conducted with key industry leaders, industry experts; and
- ❑ 9 interviews with representatives of selected executive management programs, Regional Colleges, Saskatchewan Institute of Applied Science and Technology (SIAT) and the Saskatchewan Indian Institute of Technologies (SIIT).

Training in the agriculture industry is being transformed. Training and education institutes have acknowledged the need to provide new or restructured programs and approaches to training to address the business skills requirements of managers of primary production enterprises. Institutes such as Olds College are restructuring their programs to reflect a greater focus on the "business" skills required by agribusiness managers.

Industry leaders in Saskatchewan also agree a change is required. Respondents in the survey of leading agriculture players suggest a need to focus on "business skills development" and less on the "production skills". The industry is increasingly being affected and shaped by trends in the global market place. International trade agreements, consumer demand for new food experiences and just-in-time-delivery are examples of such global trends that are shaping the agriculture and food industry in Saskatchewan.

Diversification of the farm enterprise provides new avenues to acquire revenue and to stabilize incomes. Adding value to commodities is becoming an additional source of new revenue for the agribusiness. Where once all a producer needed to know was how to grow crops and/or raise animals, the new agribusiness manager needs to add marketing, finance, human resources, strategic thinking and analytical capabilities to their list of skills. Most of these managers were never trained for this new role. These new managers and industry leaders recognize this need and the value of these new skills.

RESULTS OF THE STUDY

In order to address the objectives of the study, the consultants undertook a series of interviews with selected leaders in the agriculture industry, interviews with representatives of selected institutes that provide training and education and a literature review of the various studies that have examined the training and education needs of this industry.

There have been several studies undertaken to assess the training needs of the producers/agribusiness managers in the agriculture and food industry (See Appendix 1). These studies clearly identify key areas in which training is required to keep producers on the forefront of technology and competitive in the market place.

The traditional core areas that have been identified include:

- ❑ Financial management;
- ❑ Marketing;
- ❑ Human resource management;

- ❑ Business operations; and
- ❑ Communication.

The study also shows a need to incorporate new sources – topics into the programs. These new areas include:

- ❑ Negotiating;
- ❑ Performance Management;
- ❑ Strategic Thinking;
- ❑ Critical Analysis;
- ❑ Financial Analysis;
- ❑ Risk Management;
- ❑ Investment Management;
- ❑ Corporate Governance;
- ❑ Project Management;
- ❑ Leadership Training; and
- ❑ Managing Change.

There are several agencies providing a range of training programs. However, there is an apparent disconnect between the programs and the potential participants. Respondents to the survey indicate they believe the programs are not focused on the agriculture industry, do not provide enough examples related to the business of agriculture and suggest the facilitators are lacking experience in, and knowledge of the agriculture industry.

Many of the agencies and the programs address “elements” of the training needs. However, when the focus of many of these programs is reviewed and matched against the core competencies suggested as being required by today’s agribusiness manager, there is no one program that will address all the needs in a single package. **Coordination of programming and program delivery is lacking.**

CONCLUSION AND RECOMMENDATIONS

The Saskatchewan agriculture industry has changed. It has become less about a “lifestyle” and more about a “business”. Advances in technology, globalization and changing demographics are examples of the factors that are contributing to changes to the industry.

The results of the survey indicate the respondents are cognizant of the value of training. They agree there is a need to obtain the training. The lack of time, the cost of the training and the proximity to the training are examples of reasons for their reluctance to actively participate in the programs. The institutes that currently offer training programs regard agribusiness managers as a homogeneous group.

A review of programs for agribusiness and executive managers indicates there is no single program that will necessarily meet all the training needs of a manager. However, **the gap is the lack of connectivity between the agribusiness manager and current training programs.**

Leading edge thinking and analytical capabilities are examples of new skills required by industry leaders as government and industry strive to guide producers to achieve a vision of a competitive, technologically advanced and profitable agriculture and food industry in Saskatchewan.

The evidence points to a realization of the need for training and the opportunity for provincial institutions and programs to take a proactive and innovative approach to coordinating, developing and delivering the training and education programs for the new generation of agribusiness managers and industry leaders.

The following recommendations are therefore made:

1. **A Centre for Agribusiness Training and Education, led by an industry Board of Directors, managed by a not-for-profit organization and overseen by a Federal/Provincial partnership should be established.** This will demonstrate a commitment to provide an infrastructure offering programs that will allow the agribusiness managers and industry leaders to develop and hone their business management and leadership skills. This model recognizes the importance of collaboration among all programs offering these courses currently in the province to avoid duplication in program offerings. It is not the intention of this entity to go into competition with the current programs but rather to facilitate the delivery of the appropriate programs through current institutions and agencies.
2. **Alliances with training programs in other provinces should be formed.** The alliances will mitigate the risk of duplication and perhaps allow for program specialization.
3. **Financial institutions and equity funds should be approached for participation in the model.** These funding agencies may be enticed to provide an "incentive" role for agribusiness managers and industry leaders who graduate from these programs.
4. **The target market for this entity should be the new or emerging manager, the established manager and the senior manager.** The goal will be to move agribusiness managers to a level of ability to think strategically and to critically analyze market and business intelligence.
5. **The training should focus on training the agribusiness managers in people transition, business operations, business development and human resources.**
The critical areas of programming are:
 - Financial management;
 - Human resource management;
 - Marketing;
 - Leadership;
 - Communication;
 - Strategic thinking;
 - Critical and analytical thinking; and
 - Business operations.

Note that primary production programs are still required by the industry but are currently being addressed. See Appendix 6 for a list of courses.

6. **The needs of the Aboriginal and Metis agribusiness manager should be an integral part of the Centre.** Institutes such as the Saskatchewan Indian Institute of Technologies (SIIT), Saskatchewan Indian Federated College (SIFC), Gabriel Dumont Institute (GDI) and Dumont Technical Institute (DTI) should be approached to be part of this collaborative approach.
7. **The needs of the at-risk farmer will need to be addressed through other programs.** The Centre could act as a "pathfinder" for steering the at-risk farmer towards programs such as the Farm Consultation Service (Agriculture and Agri-Food Canada) or the Family Farm Opportunities Initiative (FFOI - Saskatchewan Agriculture, Food and Rural Revitalization).
8. **An awareness program is required to ensure that agribusiness managers are made aware of the training programs available to them.** The program should also ensure that a two-way communication process is built in so that the needs of the industry are addressed and updated on a regular basis. Consideration should also be given to raising the awareness of these training opportunities with the youth of the province who wish to enter the agricultural profession.

NEXT STEPS

- ❑ The Study Sponsor Group met on December 11, 2002 to discuss how to proceed with the report's eight recommendations. The Group believes the recommendations will enhance the relationship between those who are seeking agribusiness training opportunities and those who provide training.
- ❑ An interim committee was established to move forward with developing a Centre /clearinghouse for information on agricultural and agribusiness training opportunities. Committee members are representatives of educational institutions, farmers, commodity groups, financial institutions, Aboriginal and Metis representatives, provincial and federal government representatives, SACTAC member and a representative from community organizations.
- ❑ The interim committee will meet early in the new year to develop a marketing package to promote the Centre. This package will be shared with educational institutions and Centre target audiences such as commodity groups, etc.
- ❑ The interim committee will determine a strategy for obtaining seed money to support the marketing and development of the Centre.
- ❑ A communications plan will be finalized and implemented. The plan will include releasing the report in the new year through a news conference or news release and a copy of the report will be provided to government officials, Study Sponsor Group members, commodity groups, educational institutions and other interested parties.

- Networking, partnering and collaboration will continue to be defined and implemented, including:
 - Identifying and developing strategies for recognition of prior learning
 - Increasing employer and industry involvement in human resource planning and development
 - Improving agriculture sector responsiveness to developing and maintaining a skilled workforce.

PART ONE: BACKGROUND

INTRODUCTION

As creatures of habit, people generally resist change. In today's world of business, change is an everyday occurrence. Today, individuals and enterprises are being asked to adapt to change at a pace never before required.

Change used to be described as what was happening in our own back yard – in our local market area. Today, dealing with change is about dealing with the changes occurring in the global market place. The agriculture sector of Saskatchewan is not immune to these changes.

Saskatchewan's agriculture sector is comprised of a diverse set of industries and a diverse group of primary producers. Overall, the sector involves approximately 41,590 farms with sales of over \$10,000 and generates sales of \$5 billion annually. Primary agriculture production includes crops, livestock, poultry, animal products, greenhouse and nursery, Christmas tree and honey farms. While the sector has diversified over the past twenty years, it continues to be dominated by the crop production industry, which accounted for 71% of market receipts in 2001. However, the other sectors have gained strength as farms have diversified to gain a competitive advantage.

Saskatchewan's primary agriculture sector is in transition. This transition is largely driven by fundamental changes within the sector. In 1995, the Crow Benefit was removed and Saskatchewan farmers were required to pay the full cost of moving their export grains, oilseeds and specialty crops to port. This had the immediate impact of lowering the value of the crops produced by the amount of the former transportation subsidy. In effect, Saskatchewan became the low price point for the production of grains, oilseeds and specialty crops in western Canada.

The loss of the Crow Benefit has discouraged the production of low-value crops for export and encouraged producers to seek higher value crops. The relative reduction in the prices of grains, oilseeds and specialty crops means the province is ideally suited for livestock production and certain types of grain processing. It also necessitates larger farms in order to generate the returns necessary to be economically sustainable.

While the transition away from export grains and towards specialty crops, livestock production and processing will happen slowly – it is and will continue to happen. This transition will have a major impact on the agricultural sector labour requirements – both in terms of the size of the labour force and the skills required. For example, a shift towards large-scale livestock production will require workers skilled in animal agriculture.

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Saskatchewan Agriculture, Food and
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This Group provided guidance and input into the methodology and design of the study and were an ongoing source of information throughout the project. An external consultant was hired to conduct the study.

The study was designed to:

- Develop an inventory of similar studies in related sectors/industries;
- Identify a current inventory of available skills;
- Assess the skill needs (both current and future);
- Assess the available training;
- Determine the current and future gaps in training; and
- Develop a human resources development plan for the sector.

At the direction of the Study Sponsor Group, the focus was narrowed and the study then targeted the human resource needs of the agribusiness manager* and the skills required to manage an agricultural operation.

* *The term 'agribusiness manager' includes anyone involved in the business of agriculture, including farmers, producers and processors.*

The study sought to answer the following questions:

1. Are the current training programs supporting the needs of the agribusiness leader/manager to develop and to hone the enterprise management skills necessary to remain competitive in today's global market place?
2. Are the programs addressing the managers' needs to keep pace with change – to understand change and the impact of change on their business?
3. Are the programs capable of supporting the farm managers' need to sift through the volumes of information on market trends and new technologies, to analyze the data and to interpret the information?
4. Are the current agencies providing these support programs and training positioned to deliver these programs?
5. Are the programs capable of delivering the products and services that will be required by these leaders in achieving the provincial goal of establishing our agribusiness leaders/managers as global leaders in primary production?
6. Looking into the future 3 – 5 years, what are the training programs that will be required to help these Saskatchewan agribusiness leaders/managers in establishing this goal?

The focus for this study is to determine whether or not the right training programs are in place to help these leaders and agribusiness managers meet their learning needs.

Hodgins & Company Management Consultants Inc. was contracted to undertake this study. The team assembled by Hodgins & Company to conduct the study included:

- | | |
|--|---|
| ☐ Mary Ellen Hodgins | Hodgins & Company Management Consultants Inc. |
| ☐ Pauline Molder | Molder & Associates |
| ☐ Carol Ann Patterson | The Pathfinders Research & Management Ltd. |
| ☐ Jean Toews | Jean Toews Consulting |

OBJECTIVES

There were two major objectives of the study. These objectives were to:

- ☐ Identify inconsistencies between the current inventory and level of skills within the agricultural labour force and the current and future requirements of the sector; and
- ☐ Develop recommendations and an action plan to address the gaps that are identified.

METHODOLOGY

This report is a culmination of both primary and secondary research. The methodology used for this project included:

- ☐ Secondary research;
- ☐ Interviews;
- ☐ Analysis; and

□ Facilitation.

The primary data was gathered from a telephone interview survey of selected leading primary producers in the Saskatchewan agriculture industry. The Study Sponsor Group, the team of consultants and the interviewees provided a list of the leading primary producers.

A total of 30 interviews were conducted with primary agriculture leaders representing the Saskatchewan agriculture industry. In addition, nine interviews were conducted with representatives of educational/training institutes and/or programs.

A listing of the interviews with primary agriculture leaders is found in Appendix 2 and a list of the interviews with representatives of selected education and training institutes is located in Appendix 3.

The results of the research are outlined in PART TWO: Literature Review and PART THREE: Results of Interviews with Agribusiness Leaders. The results of the research conducted on selected education and training institutes is outlined in PART FOUR. The recommended strategy is outlined in PART FIVE: The Strategy and is based on the research findings.

PART TWO: LITERATURE REVIEW

LITERATURE REVIEW

The literature review offers an examination of the trends in agriculture that will affect the skill sets that agribusiness managers will require in tomorrow's global market place. This section includes a review of a number of studies that have developed an inventory of human resource skills needs.

Introduction

A number of key drivers and constraints impact the agricultural industry. They include changes in farm dynamics, advances in technology, regulatory structure, financial infrastructure, human resources, information technology, food safety issues, environmental considerations, and the global marketplace¹. These factors are pushing a traditionally "production focused" industry towards a **"market driven, consumer focused" industry. Farmers are now operating in a global, technologically advanced, rapidly diversifying, highly sophisticated business environment driven largely by increasingly sophisticated consumers.**

Farm operators who want to remain competitive and successfully operate in this dynamic agriculture system will choose to become high volume, low cost producers or diversify into specialty crops or livestock that provide above average profits² and take advantage of niche market opportunities.

¹ Serecon Management Consultants Inc. 1998. The Changing Structure of Farm Businesses as the Industry Expands to the Year 2005. Alberta Agriculture, Food and Rural Development.

² Allen, T. Trends in Agribusiness. Presentation at the January 2001 Agribusiness Management Development Program, Saskatoon, SK..

*Trends in Agriculture and Agri-Food***Changing Farm Dynamics****Farm Size**

The average farm size in Saskatchewan has increased over time as the number of farms decline. Saskatchewan's Action Committee on the Rural Economy (ACRE³) reports that there are approximately 41,590 farms in the province with incomes over \$10,000 with an average size of 1,152 acres. Over the past 50 years, the average farm size has more than doubled while the number of farms has fallen by over 50 %.

Agriculture and Agri-Food Canada (AAFC) provided a further analysis of farm characteristics by classifying farms according to gross revenues. They identified pension farms, lifestyle farms, low-income farms, small farms, medium farms, large farms and very large farms. (Table 1) The study indicated that the large and very large farms represent 35% of all farms in the province and account for 68% of all sales. Only large and very large farms appear to generate enough income directly from the farm to be self-sustaining.

Table 1: Farm Typology, Saskatchewan 1999

Typology	# Farms	% of Farms	% of Sales	Characteristics/Gross Revenue
Pension	10,375	25	24	Main operator is 60 to 64 and receiving pension income and all farm operators 65 years of age and over
Lifestyle	2200	5	2	Gross revenue of \$10,000 to \$49,999, off-farm income of \$50,000 and over, and negative net operating income
Low Income	3385	8	2	Gross revenues of \$10,000 to \$49,999, and total family income below \$20,000
Small	2860	7	2	Gross revenues of \$10,000 to \$49,999 and not in the lifestyle or low income category
Medium	8065	19	11	Gross revenues of \$50,000 to \$99,000.
Large	13,720	33	49	Gross revenues of \$100,000 to \$499,000
Very Large	925	2	19	Gross revenues of \$500,000 or more.

Source: AAFC

Off-Farm Employment

Falling grain prices and rising input costs have led to a significant decline in the average farm income for Saskatchewan producers. Even as the average farm size increases, farm families are becoming more dependent on off-farm income to supplement their farm income. Saskatchewan Agriculture and Food⁴ reports that 59% (\$21,290) of an average farm operator's total income was derived from off-farm income. The average farm operator's total income for 1999 was \$35,819, a decrease of 8.5% from \$39,132 in 1998.

³ Farm Income and Farm Structure Subcommittee Report. 2001. Action Committee on the Rural Economy (ACRE) in Saskatchewan

⁴ 1999 Saskatchewan Farm Operator Total Income, Saskatchewan Agriculture and Food Statistics.

The Saskatchewan Institute of Applied Science and Technology (SIAS⁵) study noted that farm owners, who manage the farm, have off-farm employment and have family responsibilities might find little time to pursue traditional training and education programs.

Net reduction of People Involved in Primary Agriculture

Rural depopulation is a trend across Canada and in many of the developed countries (United States, European Union, Australia). Factors such as an aging farm population, retirement, fewer entrants into agriculture, employment opportunities in other sectors and/or provinces, market dynamics and changing technology which allows more efficient production of agricultural products means that the number of people actively involved in farming is on the decline.

The ACRE⁶ report indicates that the rural population in Saskatchewan is declining at a rate of 1% per year. This has a significant effect on rural communities as they struggle to provide health, education and support services to their constituents. Already the impact of a reduced rural population and shrinking communities has caused training events and programs to be cancelled due to insufficient enrolment⁷.

Agricultural Technologies

With the increase in farm size, technologies that add value will be embraced more quickly. For instance, adoption of biotechnology advances that provide greater production efficiencies, the use of global positioning systems for precision agriculture, environmentally sound production practices and specialized production of value-added crops and livestock with specific qualities or output traits for food, industrialized and medical use will become prominent features in agriculture's future⁸. The issue will be deciding when and how to adopt the technologies. Agribusinesses will need the knowledge, skills and capital to adopt and implement new technologies. The technology must be economical and cost effective. The farm business will also have to evaluate the impact of the products of this technology on the marketplace and consumer and determine if there are any social and political implications in the adoption of the technology.

Regulatory Structure

Environmental regulations, food safety, farm subsidies, occupational health and safety issues, municipal property assessments, intellectual property rights and anti-trust trade sanctions will play a major role in an agribusiness firm's strategic plan. Government policy will eventually change to reflect the current agribusiness environment. There will be a trend towards fewer direct farm program payments; matching producer, industry and government dollars to fund research; and a sharing of compliance costs between the

⁵ Garven & Associates, 2001. Saskatchewan Institute of Applied Science and Technology, Business and Agriculture Review.

⁶ Action Committee on the Rural Community. October 2001. Community in Evolution Subcommittee Report.

⁷ Communication with Carl Cunningham, WESTARC Group Inc. Project Leader for "Rural Needs Assessment" study in Manitoba.

⁸ Kohl, D. 1999. AgriVisions: The Changing Face of Global Agriculture. Virginia Tech Blacksburg, Virginia.

public and the farm operator⁹. Conversely, governments will enhance enforcement of environmental and food safety regulations and guidelines.

Expanding farm operations will require a highly skilled workforce. Agriculture will need to compete with other industry sectors for labourers from the same resource pool¹⁰. In order to attract skilled workers and offer the same work safety assurances as other industries, the agriculture industry may have to evaluate its current exemptions from Occupational Health and Safety regulations, Labour Standards, Worker's Compensation insurance and other programs¹¹.

Financial Infrastructure

More agribusinesses will form strategic alliances across input sectors (i.e., lenders, input supply services) to provide products at a low cost in a short time format. This may require formal agreements or creative business arrangements to manage the production, finance, marketing and human resource issues that come with multiple owner/operator businesses¹².

Human Resources

Agriculture must compete with other industries (i.e. oil and gas sector) for skilled workers who may be seeking comprehensive employment benefit plans, training, and development packages¹³. As agriculture becomes more technologically advanced, employers will seek those individuals with higher levels of education and training who are capable of doing the job with a minimum of on-the-job training. As the operations expand and more employees are needed, farm managers will need to develop the knowledge and skills to hire, supervise and dismiss employees fairly. It will be necessary to develop strategies and plans to deal with issues of worker safety, wages, benefit and pension programs, vacations and holiday pay.

Information Technology

Agriculture is becoming increasingly reliant on gathering information through the Internet (world wide web) about product technologies, markets, consumers and competitors. Farm families need to develop the ability to find, collect, sort and apply relevant information to make decisions. While finding raw data is relatively easy, deciding which data to keep and using it in decision-making is a more difficult process.

Information technology is providing the impetus for the formation of strategic alliances to sell agriculture inputs and products through sophisticated e-business arrangements.

⁹ Ibid.

¹⁰ Bruce, D and A. Dulipovici. 2001. Results of CFIB Surveys on the Shortage of Qualified Labour
Canadian Federation of Independent Business.

¹¹ Serecon Management Consultants Inc. 1998. The Changing Structure of Farm Businesses as the Industry Expands to the Year 2005. Alberta Agriculture, Food and Rural Development.

¹² Ibid.

¹³ Bruce, D and A. Dulipovici. 2001. Results of CFIB Surveys on the Shortage of Qualified Labour
Canadian Federation of Independent Business.

Food Safety

Consumers have an increased awareness of food safety issues and want assurances that the food they eat is safe. While governments have traditionally focused their inspection effort on the food processing and food service industries, consumer demands, international markets and trade agreements are forcing farmers and governments to integrate primary agriculture operations into the food safety continuum. This is evident in Canada where the Ministers of Agriculture have agreed to include on-farm food safety initiatives in their agricultural policy¹⁴. Regulations and requirements for food safety are sure to increase in the next decade. Food safety protocols such as HACCP (Hazard Analysis and Critical Control Point) systems will, with some modification, be applied to the farm level. Traceability from farm input to farm output will also be required. Farm managers will need to know and implement industry standards in the production process and understand the legal and marketing implications of non-compliance.

Environmental Protection

Environmental protection is a critical issue for consumers, farm operators and governments as agriculture worldwide comes under intense scrutiny by the public¹⁵. Farm operations, especially as they become larger and increase in prominence, will have to be aware of the environmental regulations. In the Whitehorse Agreement¹⁶, environmental protection goals include those for water, soil, and air quality as well as maintaining and enhancing bio-diversity. Agribusinesses will be required to track environmental practices and keep the non-farm public informed.

Global Market Place

The general world economy will have an impact on the agricultural and rural sector. Seventy per cent of agricultural businesses in developed countries have a dependence on non-farm revenue.¹⁷ Consequently, changes in general business economic cycles can have a significant effect on agricultural profits and demand for food.

World trade agreements will affect how food is traded and set standards and regulations to ensure fair trading practices.

Company location will affect the competitiveness of the market as countries decide to import raw materials and produce finished products themselves rather than import finished goods.

Global Agriculture Change and Agricultural Training

Global changes in agriculture necessitate changes in agricultural training. The challenge for farm operators, rural communities, the agriculture and agri-food industries,

¹⁴ Whitehorse Agreement. Federal-Provincial-Territorial Ministers of Agriculture Agreement in Principle on an Action Plan for an Agricultural Policy Framework. June 2001.

¹⁵ Kohl, D. 1999. *AgriVisions: The Changing Face of Global Agriculture*. Virginia Tech Blacksburg, Virginia.

¹⁶ Whitehorse Agreement. Federal-Provincial-Territorial Ministers of Agriculture Agreement in Principle on an Action Plan for an Agricultural Policy Framework. June 2001.

¹⁷ Kohl, D. 1999. *AgriVisions: The Changing Face of Global Agriculture*. Virginia Tech Blacksburg, Virginia.

educational institutes and governments will be to determine what types of programs and services would best serve the needs of the farm manager in this agribusiness economy. These programs must take into consideration the skills farm operators need to cope with, and adapt to the changing environment. Agricultural training programs need to teach farmers goal setting, critical thinking and problem solving skills. There should be an increased emphasis on marketing, information management, natural resource and environmental management, international agriculture, biotechnology, entrepreneurship and farm diversification¹⁸.

The Whitehorse Agreement¹⁹, entered into by the Federal, Provincial, and Territorial Ministers of Agriculture, provides the framework for the formation of an agricultural policy in Canada that reflects global changes in agriculture. The five priorities outlined in the Agreement's action plan will lead the way for Canada to become a world leader in food safety, innovation and environmental protection. The priorities are:

1. Rural renewal;
2. Environmental protection;
3. On-farm food safety;
4. Innovation through science and research; and
5. Safety net programs.

The rural renewal priority addresses the support needed by farmers to adapt to the rapidly changing agricultural environment. The rural renewal initiative will focus on the three areas:

- Accessing capital;
- Capturing business opportunities; and
- Building business skills for the future.

Subcommittees will be developing national strategies and programs to assist the farm operator.

Saskatchewan has already begun this process of evaluating the business needs of current farm operators and looking at what can be done to meet their future needs. Since sufficient economic activity in rural communities is critical to the continued success of farming, ACRE is tasked with identifying the initiatives and policies that will revitalize the rural communities in Saskatchewan. The need for adequate training and education in agribusiness is just one component of the ACRE initiative. Saskatchewan Learning (formerly PSEST) with its Saskatchewan Training Strategy²⁰ has initiated a series of sector partnerships to identify the human resources skills needs of a number of industry sectors in Saskatchewan. As well, the Saskatchewan Institute of Applied Science and Technology (SIAST) is currently conducting an extensive review²¹ of its Business and Agriculture Division to ensure programs meet the needs of the agricultural community.

¹⁸ Agyirey-Dwakyie, K. 1996. A Review of Existing Farm Business Management Reports and Benchmark Studies (in Saskatchewan) Agriculture Institute of Management in Saskatchewan (AIMS)

¹⁹ Whitehorse Agreement. Federal-Provincial-Territorial Ministers of Agriculture Agreement in Principle on an Action Plan for an Agricultural Policy Framework. June 2001.

²⁰ The Saskatchewan Training Strategy. 1997. Saskatchewan Post Secondary Education and Skills Training

²¹ Garven & Associates, 2001. Saskatchewan Institute of Applied Science and Technology Business and Agriculture Division Review.

The Agriculture Institute of Management in Saskatchewan (AIMS) has provided training programs in all aspects of farm business management for over ten years. This organization recently underwent a review²² to determine how best to operate in the future to meet farm management needs.

Alberta and Manitoba are also evaluating how to best serve the changing dynamics of their agricultural communities and agribusinesses. In 1998, Alberta Agriculture Food and Rural Development completed a three part study to "Assess the Business Management Skills Required by Primary Agri-Industry in 2005". The studies looked at the changing structure of farm businesses, business management issues and management challenges. These studies will be discussed in more detail later in this report. More recently, Manitoba has initiated a "Rural Adaptation Needs Assessment" to investigate the adaptation, succession and transition needs of agricultural producers.

An Inventory of Studies Related to Farm Business Management in Prairie Agriculture

Appendix 1 lists, in chronological order, thirty-four studies or reports that have been done or are in progress in Saskatchewan and across Canada since 1993. The various reports describe the farming environment; required farm business management practices and the identification of skills that will be needed to operate in today's changing agricultural industry. A comprehensive list of existing farm management reports and benchmark studies in Saskatchewan by K. Agyirey-Kwakye²³ can be found in the 1996 review (See Appendix 1).

The reports listed in Appendix 1 can be divided into four general categories. These categories are as follows:

1. Reports that profile the prairie farmer and rural communities, identify trends in global agriculture and agri-value trade, and discuss the impact of these trends on prairie agriculture and farm business managers.
2. Reports that highlight the fundamental competencies and skills required to manage farm businesses.
3. Reports that identify and discuss the management challenges farm businesses will face while competing in the global economy and the attributes of successful farm business managers.
4. Reports that touch on broader issues (for example: youth, other sectors, labour shortage) related to human resource skill needs.

Only Categories 2 and 3 will be discussed in more detail as these studies are more directly related to the objectives of this project.

²² Hodgins, M. E. and B. Klassen. 2001. AIMS -Future Mandate. Agriculture Institute of Management in Saskatchewan.

²³ Agyirey-Kwakye, K. 1996. A Review of Existing Farm Business Management Reports and Benchmark Studies. Agriculture Institute of Management in Saskatchewan (AIMS).

Comparing Results of Selected Studies

Category 2: Reports that highlight the fundamental competencies and skills required to manage farm businesses.

The skills needed to successfully operate a farm enterprise are well researched and documented. These skill sets have been highlighted in reports prepared for the AIMS in Saskatchewan²⁴ and the Canadian Farm Business Management Council^{25,26}. The accepted farm management skill areas and examples of some of the identified competencies are listed in Table 2.

²⁴ Garven & Associates. 1993. Farm Business Management Skills Matrix and Training Development Plan

²⁵ Canadian Farm Business Management Council. 1996. Canadian Framework for Effective Farm Business Management Practices.

²⁶ Garven & Associates. 1997 Effective Farm Business Management Practices and Performance Measures. Canadian Farm Business Management Council.

Table 2: Skills and Competencies Required by Farm Business Managers^{24,25}

Skill	Examples of Competencies
Farm Business Planning	Understanding the purpose and all components of business plan, conduct a SWOT analysis for the farm operation, assess viability of new enterprises, use strategic planning, critical thinking and problem solving skills
Human Resource Planning	Clarify values and set personal and family goals, develop a management team approach, hire, supervise and dismiss employees, resolve human resource conflicts
Financial Planning	Understand purpose of financial statements, understanding and selecting an appropriate accounting method for farm operations, negotiate financing, budgeting and forecasting, estate planning
Production Planning	Determine optimum levels of production, maintain inventory, keep and analyze production records, assess market cycles and opportunities, assess new technology
Marketing Planning	Understand marketing systems and tools, understand cash contracting alternatives, design marketing strategy and plan, maintain marketing records
Entrepreneurship	Communicate, lead, innovate and examine and evaluate personal traits (business, interpersonal and individual)
Information Management	Identify sources of information, and access, store, analyze, apply and evaluate the information.
Environmental Management	Identify environmental issues (soil, water, air, animal health care) and prepare plan to manage these issues.

The Canadian Farm Business Management Council²⁵ added to the skills set by including entrepreneurship, information management and environmental management.

In the last 10 years, the basic farm management skill sets required to successfully run a farm enterprise has not changed. **What changes with time is the demand by farm managers for specific types of training.** Garven and Associates have conducted 3 reviews of the farm business programs offered by the AIMS over a nine-year period. A comparison²⁷ of the three reviews conducted in 1992, 1995 and 1998, noted that interest in production-oriented courses ranked first in 1992 and 1998 but were ranked second in 1995. In that year, interest in marketing oriented topics predominated. The report notes that this renewed interest in production-oriented topics was supported by actions taken by Saskatchewan producers to improve their knowledge and skills. Business and financial management oriented topics had risen in ranking to third in 1998. Farm labour management, leadership, building strategic alliances and environmental management were all ranked at the bottom of the preferred interest list.

In the study "Farm Business Management Skills Matrix and Training Development Plan"²⁸ the authors produced a list of "complementary skills" that would support

²⁷ Garven & Associates. 1999. 1998 Western Canadian Benchmark Survey Prepared for Agriculture Institute of Management in Saskatchewan, Alberta Farm Business Management Initiative, Manitoba Farm Business Management Council

²⁸ Garven & Associates. 1993. Farm Business Management Skills Matrix and Training Development Plan. Agriculture Institute of Management in Saskatchewan

identified foundation skills. Computer skills, information management skills, negotiation skills, stress management, employee management skills, personal development, and communication skills were all identified as complementary.

Today, those complementary skills are in demand as the changing farm environment issues new management challenges to the farm business manager. New skills will have to be learned or existing skills updated. This changed emphasis on types of skill sets required by farm business managers is supported by evidence provided by Carl Cunningham of Manitoba²⁹ who is currently conducting a study in Manitoba to assess rural adaptation needs. He indicated that farm managers are now looking for more training in human resource management issues including employee management, communication and negotiation skills. This request was not evident five years ago.

Category 3: Reports that identify and discuss the management challenges farm business will face while competing in the global economy and the attributes of successful farm business managers.

Management Issues and Challenges

As indicated earlier in this report Alberta Agriculture Food and Rural Development had commissioned a three step study to "Assess the Business Management Skills Required by Primary Agri-Industry in 2005". Step one had identified the changes in the agriculture structure. The second and third step in Alberta's human resource project identified management issues³⁰ and challenges³¹ that would face Alberta farmers to the Year 2005.

Dr. Leonard Bauer identified four major management issues that will need attention as the primary agriculture sector in Alberta expands. These same issues apply to this sector in Saskatchewan.

1. People transition issues

People in transition include the categories of those leaving farming (retirement or other business opportunities), those who maintain the status quo, those choosing to expand their existing operations and new entrants. Second generation managers will need management training and services and those new entrants who have very little agricultural training or who have operated farms in other countries may require technical training.

2. Business development issues

Owners must be concerned with the economic viability of the enterprise. They must think and plan strategically, set and communicate business goals and be concerned with family and group dynamics

3. Business operation issues

Managers must have sound technical knowledge, negotiate the appropriate business operating arrangements (licensing, etc.), be accountable to business owners and manage information systems.

²⁹ Communication with Carl Cunningham. WESTARC Group Inc., Brandon University. Project Leader for the "Rural Needs Assessment Study" currently being conducted in Manitoba

³⁰ Bauer, L. 1998. Business Management Issues in Alberta's Expanding Primary Agriculture Sector. Alberta Agriculture, Food and Rural Development

³¹ Bradshaw, G. and P.E. Gervais. 1998. Management Challenges for Alberta's Farming Industry to the Year 2005. Alberta Agriculture, Food and Rural Development.

4. Human resource issues

Managers must determine the appropriate operating and ownership arrangements among family members and develop the skills and ability to lead and motivate. They must also recognize that farm businesses are in competition with the rest of the economy regarding the supply of labour. Managers will need to develop competitive employee compensation plans (remuneration and benefits).

From these four management issues, Bradshaw and Gervais³², in the third step of the Alberta study, identified managerial skills that would be required to operate viable farm businesses in the future. These managerial skills are:

1. Negotiating skills and legal awareness

- ☐ Contractual agreements with input suppliers (banks, genetic companies, chemical companies, etc.) will require skills in evaluating agreements and negotiating terms.
- ☐ Farm managers must be prepared to hire the necessary skills to draw up and help enforce contracts.

2. Family and business dynamic skills

- ☐ Farms will continue to be run as family businesses with changing family dynamics, goals and financial commitments.
- ☐ Managers must deal with ownership and operational management styles.
- ☐ They must upgrade skills in family and group dynamics and conflict resolution.

3. Economic and investment analytical skills

- ☐ Need to keep abreast of industry trends and global economic events.
- ☐ Develop skills or outsource economic analysis skills (investment analysis).

4. Employee relationship skills

- ☐ Essential to attract and maintain a highly skilled labour force.
- ☐ Need to consider salary, working conditions, health and safety regulations, liability risk management.

5. People transition management

- ☐ Requires long term planning and family/owners involvement.
- ☐ Need skills to assess resources and capabilities to make informed decisions to exit farming, maintain the status quo or expand/modify the farm business.

6. Information technology and information management skills

- ☐ Need to design efficient methods for managing information sources and requirements.
- ☐ Be able to use the right information at the right time to make business decisions.

7. Communication and leadership skills

- ☐ Lead and motivate employees.
- ☐ Communicate ideas to partners and supporters of business.
- ☐ Establish working relationships with neighbours and the public.

8. Environmental management skills

- ☐ Farms will need to be pro-active and keep abreast of environmental regulations.
- ☐ Owners will need to evaluate farm management practices in light of consumers concerns with environment and water, soil and air quality.

³² Bradshaw, G. and P.E. Gervais. 1998. Management Challenges for Alberta's Farming Industry to the Year 2005. Alberta Agriculture, Food and Rural Development

9. Food safety management skills

- ☐ Need to develop and document food safety strategies that comply with industry standards and government regulations.
- ☐ Need to participate in industry food safety programs.
- ☐ Understand legal and marketing implications of non-compliance.
- ☐ Understand relationship to consumer concerns and needs.

10. Agricultural technology management skills

- ☐ Stay informed and competent in the knowledge and use of agricultural production technologies (i.e., global positioning systems, new crop varieties, new livestock breeds).
- ☐ Develop ability to evaluate new technologies and manage those technologies if they fit with the business goals of the operation.

Attributes of Successful Farm Managers

Two studies identify the characteristics of successful farm business managers. The authors of *Identifying Management Differences between Farmers in Canada*³³ interviewed 65 profitable farm enterprises across Canada to determine management differences between high, medium and low margin farmers. They wanted to learn which management practices lead to effective decision-making and resulted in successful farm income generation. Their analysis of the interview results categorized farmers into top, good and average managers and identified eight key actions/skills of top managers. The characteristics of top managers are:

1. Good financial and production management systems: Managers use these records to evaluate profitability of farm enterprises and make sound business decisions;
2. Well-developed marketing skills. Managers are responsive to market signals and investigate different market and value added opportunities. They also market their outputs in number of different ways (i.e., cash sales, direct selling to consumers). Top managers use marketing boards the least;
3. Extensive personal networks that are maintained and nurtured: Top managers use these networks to obtain timely and useful information;
4. Strong analytical abilities that allow good evaluation of new enterprises or projects: Managers use formal analytical tools (written farm plans or budgets) or informal tools (personal insight and knowledge) to make decisions;
5. Diversification efforts of operations in order to manage risk;
6. Recognition of opportunities for profit;
7. Well developed negotiation and interpersonal skills to ensure favourable agreements and low costs with a number of different industry players; and
8. Effective management of human resources: Top managers have made the effort to establish human resource management practices to enhance employee productivity.

The study identified key strengths in a second grouping of successful managers:

- ☐ Mega-managers;

³³ Howard, Brinkman and Lambert. 1994. *Identifying Management Differences Between Farmers in Canada*. Canadian Farm Business Management Council.

- ❑ Supply managed commodity managers; and
- ❑ Prairie grain producers.

Top mega-managers operated large diversified operations and were more adept at accessing marketing opportunities. While top managers within the supply management commodity managers and prairie grain producers had strengths comparable to the mega-manager, their marketing abilities (skills and responsiveness) were less developed.

A second study conducted in Alberta in 2000 was initiated to guide the curriculum development for an agriculture management program called "Competitive Advantage Program for Agriculture" (<http://www.oldscollge.ab.ca/extension/capa/index.asp>). The study "Needs Assessment Profile—What Successful Managers Do"³⁴ is the result of asking successful farm business managers in Alberta what tasks they performed that contributed to their success. The more than 400 identified tasks were ranked in order of importance and grouped into competency bands. These competency areas, in order of importance, are as follows:

- a. Apply self management and development skills;
- b. Use communication and negotiation skills;
- c. Make business decisions based on analysis;
- d. Manage equipment and equipment investment;
- e. Plan, organize and perform farming operations;
- f. Manage farm finances;
- g. Perform research on farm production;
- h. Manage marketing program;
- i. Manage human resources; and
- j. Maintain production records.

In a workshop report of the Business Skills for the Future Sub-committee of the Rural Renewal Initiative of the Whitehorse Agreement³⁵, Anita Lunden of Alberta Agriculture and Food wrote a discussion paper on "Management Skills for the Future"³⁶ that provided the groundwork for discussion for the working group. Her paper summarized and compared the management skills identified in seven of the studies listed in Appendix 1.

Those studies are listed below:

1. *Identifying Management Differences between Farmers in Canada* 1994. Wayne Howard, George Brinkman and Remy Lambert.
2. *Effective Farm Business Management Practices and Performance Measures*. 1997. Garven & Associates Ltd.
3. *Step 1: The Changing Structure of Farm Businesses as the Industry Expands to the Year 2005—Phase II of An Assessment of Business Management Skills Required by Primary Agri-Industry in 2005*. 1998. Serecon Management Consulting Inc. Prepared for Alberta Agriculture, Food And Rural Development

³⁴ Alberta Agriculture, Food and Rural Development. 2000. Needs Assessment Profile—What Successful Managers Do.

³⁵ Agreement in Principle on an Action Plan for an Agricultural Policy Framework, Federal-Provincial-Territorial Ministers of Agriculture, Whitehorse, Yukon, June 29, 2001.

³⁶ Lunden, A. 2001. Discussion Paper on Management Skills for the Future. Prepared for the Federal-Provincial-Territorial Working Group Committee, Winnipeg, MB October 18-19, 2001

4. *Step 2: Business Management Issues in Alberta's Expanding Primary Agriculture Sector – Phase II of An Assessment of Business Management Skills Required by Primary Agri-Industry in 2005.* 1998. Leonard Bauer. Prepared for Alberta Agriculture, Food And Rural Development
5. *Step 3: Management Challenges for Alberta's Farming Industry for the Year 2005.* 1998. Gerry Bradshaw and Paul Gervais. Prepared for Alberta Agriculture, Food And Rural Development
6. *Needs Assessment Profile-What Successful Managers Do.* 2000. Prepared for Alberta Agriculture, Food and Rural Development
7. *Needs Assessment Profile-Financial Management.* 2001. Prepared for Alberta Agriculture, Food and Rural Development.

Lunden evaluated the skills that were common to all the studies and identified the skills most critical to helping farm business managers as they evaluate future farm and business operations. The identified skills and/or competencies were related to the following:

- a. Acquiring, organizing and assessing information;
- b. Making good business decisions; and
- c. Using and organizing resources to implement decisions.

Using this document and others supplied at the working group meeting, the Federal Provincial-Territorial Sub-committee will determine how best to provide the farming community in Canada with programs to develop skills that will enhance their ability to succeed. The Working Group Subcommittee will be focusing their efforts on the needs of beginning farmers, farmers with low incomes and farmers who are considering alternative income generating options to support their farming operations.

Summary

The changing agriculture environment will necessitate changes in agricultural training. The basic farm management skills and core competencies are still important today but the 1998 Alberta study has clearly identified management issues and challenges that face all farm managers in Canada in the near future.

Food safety, environmental protection and information management are just some of the topics that will need to be addressed more thoroughly in many farm business management programs in order for these agribusiness enterprises to remain competitive in the future.

Because these management issues and challenges cross all sectors and all provinces, there needs to be a concerted effort to coordinate the development and the delivery of training programs and services across Canada or between regions with similar agriculture profiles.

PART THREE: RESULTS OF INTERVIEWS WITH AGRIBUSINESS LEADERS

INTERVIEW RESULTS

Background

Thirty telephone interviews were conducted with leaders in the Saskatchewan agriculture industry. This section of the report provides a synopsis of the survey results. The total number of responses for each question may not total 30, as not all respondents answered all questions. In addition, some respondents may have provided several answers. Many of the questions that required specific answers offered the respondents the opportunity to provide additional comments.

The Study Sponsor Group provided a list of possible contacts. Additional names were solicited from the interviewees. The potential interviewees were suggested as people who are knowledgeable in the needs of the industry.

The sectors of agriculture from which the respondents were chosen are shown in Table 3. The respondents were chosen for their reputation of being leaders in their sector. The sectors to be examined were identified at the outset of the project.

The results of the survey are reported collectively and not divided by sector, as the survey responses were not significantly different between the respective sectors.

Table 3: Sectors represented by respondents

Crops	19	Livestock (cattle, hogs)	14	Poultry	1
Honey	4	Greenhouse/nursery	4	Christmas trees	1

The objectives of the survey included to:

- ☐ Determine the type of business skills the leading agricultural enterprise managers require;
- ☐ Determine if the training programs are available in Saskatchewan; and
- ☐ Determine how best to deliver the training programs to the leading agriculture enterprise managers.

Opportunities

The interviewees were asked to identify potential opportunities for their farm enterprise. Twenty-eight respondents believed there are opportunities to grow their businesses within their sector of the agriculture industry. It is interesting to note here that even with the current bleak outlook for agriculture in the coming months, these respondents still believe there are opportunities to be captured. Each of the respondents was excited about the growth potential whether the opportunity was in new markets, new products or value added processing.

Producers who were pessimistic about the opportunities in their sector of the industry did believe there were still opportunities for themselves. For example – one producer believed he could capture market share from producers in the same sector. Another producer believed he could capture increased revenues from his operation by adding value to his production.

The majority of the livestock producers were looking to feedlots as a way of capturing growth opportunities for their enterprise. They are of the opinion that Saskatchewan has a competitive advantage over their counterparts in Alberta.

All respondents were extremely positive about the future of farming in Saskatchewan and about the future for the agriculture industry in general. There was no indication of “self pity”, “regret” or “complacency”. One respondent indicated that he intended to restructure his business to establish a joint venture. An additional respondent indicated he was now working inside a co-operative that was attempting to establish new markets for value added products.

With increasing export markets, the hog industry is expected to see a significant growth in the number of hog barns in Saskatchewan. Each respondent with a hog barn indicated there are growth opportunities for hog production and in the market for value added feed grains.

While the beekeepers interviewed indicated they saw strong growth opportunities for their sector, they saw their ability to capture these opportunities being inhibited by the lack of skilled labour.

All interviewees were then asked if they believed they were in a position to take advantage of the opportunities identified. Of the responses to this question, twenty-four producers believed they could take advantage of the opportunities identified.

The identified opportunities included:

- ☐ Organic crops;
- ☐ Value added processing;
- ☐ Market expansion; and
- ☐ Growth of the livestock sector.

Some of the respondents believe they are in a good position to take advantage of food safety concerns by developing protocols to trace their products from farm-gate to the end user.

Business managers believe they are in a good position to take advantage of lower costs of production in Saskatchewan.

Among the reasons given for not being able to take advantage of opportunities included:

- ☐ Lack of desire (retirement);
- ☐ No commitment (retirement); and
- ☐ Inadequate financing.

These respondents clearly believe there are opportunities to grow their operations and they are poised to do just that. However, there were three respondents who were not as optimistic. One respondent – a beekeeper – indicated that a lack of skilled labour would restrict their ability to capture growth opportunities in the sector.

Two other respondents indicated that a lack of capital and government policy would restrict their ability to grow their enterprises. However, both respondents admitted they would likely expand their operations in the near future.

A selection of comments from other respondents included:

- ☐ "By identifying niche markets, our farm can service and target production. Barriers are the availability of capital and government policy. The government is not interested in creating an economy. They need sound policy and decision making."
- ☐ "We are putting together different business structures, establishing joint ventures, formalizing everything and we're taking them from different industries."
- ☐ "Quadra (we are) is in an expanding, dynamic and growing industry. We're increasing production and looking at export markets. We're going to capitalize on adding value to feed grains in products. We're putting components together, business structures, consolidation of business activities, getting financing."
- ☐ "We're half way into it. We've got a new irrigation project up and running. We are trying to get as much value added in house as possible."
- ☐ "Have no profits because prices are low."
- ☐ "Primary production is weather driven and any long term strategy is sacrificed for short term changes."
- ☐ "Financing is always a limiting factor. We look at where to find it and how to get financing and we look at risk management."
- ☐ "Being able to adapt to change, being effective at information transfer and by having good goals in place."

Business Skills

Many business skills have been identified as useful in the management of a farming enterprise. Table 4 below lists the skills the committee selected to be examined in the survey. These skills were selected because they cover areas of self-management, communication, managing others and leadership. These areas of importance are the types of skills that are identified by the Conference Board of Canada as essential to running a successful business.

Respondents were asked to rank each skill by perceived importance to operating a successful and profitable enterprise, and then respond to the question as to whether this training is currently available. Each respondent was given the opportunity to make comments. The Table reports the percentage of respondents who ranked each skill as important. Rankings 4 and 5 are considered most important and rankings 1 and 2 least important to running a successful business. For purposes of reporting, rankings 1 and 2 and 4 and 5 have been combined. A complete reporting can be found in Appendix 4.

All respondents indicated the list of business skills listed were important. However, many of the respondents did not answer the questions "objectively." The responses were more "subjective" as respondents tended to refer to their own business operation when answering the questions. This reflects the degree of variance in the ratings.

Many of the respondents indicated that some of the skills could not be taught and that these particular skills were "inherent" skills. These included:

- ☐ Good communication;
- ☐ Analytical skills;
- ☐ Negotiation skills;
- ☐ Conflict management;
- ☐ Being able to delegate; and
- ☐ Motivational skills.

Many producers indicated there are no or they were not aware of training opportunities for a number of skills. In a few cases, respondents qualified their statement with the words "for the ag industry".

Table 4: Business Skills

Skill	Ranking			Available	
	1-2	3	4-5	YES	NO
Time management—set priorities and meet deadlines			100%	14	15
Managing finances			100%	21	8
Delegate responsibility			100%	9	21
Ability to identify and solve problems (analytical skills)		3%	97%	12	16
Goal setting		3%	96%	20	10
Risk management	3%	3%	93%	20	9
Identify market opportunities		3%	93%	16	13
Oral communication with employees, colleagues and business people		10%	90%	18	10
Implementing the marketing strategy	3%	3%	90%	19	9
Understanding what your customer wants		13%	87%	13	16
Conducting economic analysis of the business	6%	6%	87%	26	4
Encourage and motivate		16%	83%	14	15
Negotiating skills		20%	77%	10	19
Developing remuneration package (including benefits)	6%	13%	73%	5	23
Ability to manage conflict	6%	26%	67%	16	13
Written business correspondence, reports	6%	23%	67%	15	15
Understanding contractual agreements	13%	20%	67%	16	11
Use of computer software appropriate to your business needs	3%	33%	60%	26	3
Use of the internet for information in business decisions	16%	27%	57%	22	7
Presentation skills	13%	33%	53%	19	10
Meeting management: chairing meeting	16%	33%	46%	15	15

On further analysis of the data, it would appear that a number of the producers may not be looking that extensively as many producers believe the courses in existence are not specific enough to the agriculture industry and are not meeting their needs.

In addition, some interviewees expressed disappointment with previous courses, or they were not satisfied with the apparent content of courses they found. The producers then “gave up” looking for courses.

A few interviewees suggested they would prefer to learn by working with a mentor or their peers who already have the experience. They would prefer this alternative to learning from a consultant or trainer who may not have the actual experience.

Courses that were highly respected and well used in the industry include those courses provided by industry associations and organizations as well as AIMS and Canadian Agriculture Lifetime Leadership Program (CALL). Their comments about these programs were positive indicating these courses covered the detail, education and information that was desired. However, respondents' responses suggest that courses could increase the focus on areas such as securing capital and financing.

Some respondents believed that several of these skills could only be learned through experience and in some cases the respondents commented that it would be more beneficial to hire the expertise as needed. Examples of skills to be learned through experience include the development of negotiating skills, learning to delegate, analytical skills and oral communication. Legal expertise could be purchased to explain contractual agreements.

Respondents consider a need for human resource skills – negotiating skills, conflict management, and development of remuneration packages - to be less important than the ability to manage time and finances. Respondents appeared well aware of the availability of training courses in computer software (26) and using the Internet (22) for gathering information. However, respondents rated these skills lower to operate a successful business.

Respondents of intensive livestock operations, particularly the hog sector, indicated they conduct in-house training for staff. In this case, tailor-made technical programs are required. Comments indicate that some of the programs offered are viewed as business programs and are not applicable to farming enterprises. Respondents identified that the lack of marketing courses was an issue.

The need for these skills was generally recognized in order to operate a successful operation. However, there was a lack of awareness of training available in many topic areas. In every skill there were respondents aware of available training but respondents were inconsistent in their acknowledgement of what training is available. The lack of awareness was most evident in the areas of time management, problem solving, negotiating, report writing, meeting management, delegation of responsibility, developing remuneration packages, and recognizing customer needs.

Market Trends and Skills

When considering the future skills requirements, respondents indicated that in order to be successful, agricultural enterprise managers would require additional skills including:

- ☐ Agricultural technology management skills;
- ☐ Information management;
- ☐ Creating alliances with input suppliers;
- ☐ Managing on-farm food safety systems; and
- ☐ Environmental management.

Respondents were asked if they considered these skills as important. While the data indicates that many of the respondents indicated these skills would be required in the future, many of the respondents have already acquired and are using these skills. The responses are reported in Table 5 below.

Producers already recognize that on-farm food safety and environmental management are important factors in their operations. This is particularly true for the livestock producers. Producers acknowledge these areas will become increasingly important in coming years.

While they see their skills would have to change as a result of changing regulations, they do not believe they will require any new skills. All areas identified were considered to be important. When asked to rank in order of importance, **management of on-farm food safety systems was ranked the highest.**

Creating alliances with input suppliers was identified as being least important with only 21 out of 30 respondents considering it important. While many respondents indicated these factors were important, it was difficult to rank them. Due to issues such as "carbon credits" and "HACCP", respondents tended to rank food safety and environmental management more important.

Respondents' comments indicate the skills (See Table 5) are not viewed as business management skills. Rather, producers see these as "tasks" to be addressed separate from the day-to-day business management issues.

Table 5: Skills Necessary to Meet Future Trends and Responses

Skills important when planning for future	Number of respondents Saying Yes	Number of respondents who ranked each skill according to importance. (4 most important)			
		1	2	3	4
Environmental management skills	29	3	11	8	6
Agricultural technology management skills (researching new technologies and deciding which ones to adopt)	27	6	9	7	6
Managing on-farm food safety systems (compliance with regulations and consumer demands)	26	6	2	9	11
Creating alliances with input suppliers	21	12	6	4	6

Management of on-farm food safety systems and environmental management are viewed as regulatory issues.

Respondents were asked if there are other skills important to the successful operation of a farm business enterprise. Nineteen respondents indicated there were other skills required to operate farm business enterprise. From the 19 respondents, there were a total of 15 different answers. Technology, production skills, financial management, accounting and analysis of written reports are examples of some of the responses.

The answers to this question indicate that the respondents put the components back into clusters of tasks or skills. For example, financial management encompasses analytical skills, use of computer software, risk management and managing finances. In addition, production or enterprise-specific skills were acknowledged as necessary. The need for specific or specialized communication skills focused on listening and the need for public relations skills and skills with which to lobby governments were also indicated. Additional human resource skills included an understanding of cultural diversity and Aboriginal issues in order to hire First Nations people. The acquisition and management of capital for large-scale business is of concern by people wishing to expand.

When asked to comment on the types of other skills managers needed to improve, responses were varied but indicated a need for education in many areas. The following are examples of the most common responses:

- ❑ "Mediation, time management, efficiency, effectiveness, goal setting, lobbying skills to government and public";
- ❑ "Strategy planning, food safety, marketing, risk management";
- ❑ "People skills, financial management"; and
- ❑ "Farmers don't challenge status quo, lots of decisions are based on 'the way my father did it', nothing much changes".

Other comments that the respondents made in relation to this question:

- ❑ "Technology is a knowledge based issue, one must understand production issues to do research in order to cut production costs, information is as important as technology".
- ❑ The business perspective is different from the political perspective; choices may not be left to me because of legislation on environment and food safety".
- ❑ "Don't need to learn these skills. I can go to other people to get this information".
- ❑ "Alliances are important if trying to minimize inputs, not important when trying to maximize revenue".

Employees and Essential Skills

Many of the respondents hire employees. Questions were asked to ascertain whether innovators and leading industry operators were able to hire people with appropriate skills and which skills are required. Seventeen respondents indicated that they do have problems hiring employees. Others indicated they either do not have problems or do not hire additional workers.

The Conference Board of Canada refers to the skills that are essential for anyone in the workforce, regardless of sector or industry, as "essential skills", "soft skills" or "employability skills."

Many of the skills that were identified by the respondents as being necessary for a good employee were skills such as:

- ❑ A willingness to work and to learn;
- ❑ Literacy;
- ❑ Flexibility;
- ❑ Reliability;
- ❑ Problem solving; and
- ❑ Decision-making.

In addition, "mechanical ability" and "an ability to operate a variety of equipment" were seen as assets. However, in some sectors of agriculture it is deemed possible to teach "enterprise-specific" skills if the employee exhibits the required soft skills.

A number of producers indicated they were disappointed in the work ethic of the younger generation. Some of these individuals were not able to "properly take orders", "did not show up on time", or "sometimes didn't show up at all".

A selection of comments from other respondents includes:

- ☐ "We need training for people we are trying to hire too, not just managers."
- ☐ "Used to have a School of Agriculture where the minimum requirement was grade 10 – now it's changed."
- ☐ "We need a program for kids who have trouble in school and need hands on experience. We've gone too far. Some of these kids have good skills".

Contract Workers

Twenty-two of the respondents hired contract workers. There were three groups of contract workers hired:

- ☐ Those who provided both equipment and the human resource such as custom combiners, sprayers, grain haulers.
- ☐ Professionals such as lawyers, accountants and veterinarians.
- ☐ Those who provide specialized skills such as construction workers, electricians, and plumbers.

The majority of custom workers hired were sprayers, grain haulers, construction workers as well as professionals such as lawyers, accountants and veterinarians. The size of the business determined whether any "administrative and professional services" were acquired in-house. For example, large pork barns hired their own administrative support services.

Acquiring Information

In order to determine suitable types of training programs it is necessary to recognize what types of information the innovators already seek. The respondents were asked to name types of information they considered most important. The majority of responses identified marketing, financial and technical/production information as being most often accessed, with fewer responses in human resources and planning.

In priority, the channels used to source information were identified as:

- ☐ Magazines;
- ☐ Internet;
- ☐ Newspapers;
- ☐ Industry organizations;
- ☐ Trade shows;
- ☐ Commercial companies that sell product;
- ☐ Newsletters;
- ☐ Books;
- ☐ Crop Production Show;

- ☐ TV; and
- ☐ Other included peers, customers, extension staff (public and private), banks, DTN satellite.

One of the most common answers given was "networking among peers, customer groups, and other producers". The other popular answer was "DTN satellite".

Training

Twenty-five of the respondents had attended training in the previous two years. Short courses and seminars offered by Saskatchewan Agriculture and Food, AIMS and industry groups were most popular. Longer, more intensive courses that were identified include Agribusiness Management Development Program (AMDP); a Certificate in Business Administration through the University of Saskatchewan; and Canadian Agricultural Lifetime Leadership Program (CALL).

When respondents were asked why it is difficult for agricultural managers to attend training sessions results were varied. Nineteen respondents considered that lack of time was an important reason for not attending courses, followed by 8 respondents who cited cost and 5 who considered distance a factor. Other identified reasons included:

- ☐ The training was too basic or not targeted to agricultural industry members.
- ☐ The operators may be embarrassed by their lack of computer or reading skills.
- ☐ Courses are not changing as industry is changing.
- ☐ Information is not leading edge.
- ☐ There is no one to whom to delegate authority when away (middle management problem).
- ☐ They have off farm jobs.
- ☐ Courses are generally too long (more than 5 days is too long).
- ☐ They feel intimidated - feel they do not have the skills.
- ☐ They want to get hands "dirty" - hands on experience.
- ☐ They are unwilling to commit ahead of time.
- ☐ They lack motivation.

Concerns were expressed that some trainers and consultants lacked hands-on experience in the topics on which they were speaking. There is an element of hostility towards trainers who set themselves up to be experts. Producers believe these people lecture rather than facilitate learning. These professionals do not take advantage of the expertise in the room by allowing input.

Some respondents noted that the Agribusiness Management Development Program (AMDP), offered through AIMS and the University of Saskatchewan, was highly rated because of the interactive nature and the opportunity to learn from experts who are both guest lecturers and the participants in the program.

Respondents acknowledged that there is no one best method of delivery as people are at different stages. There is an identified need to offer training at different levels to accommodate different degrees of understanding and expertise.

"Short courses" appear to be the best delivery method. People are looking for interactive programs where they can learn as much from the participants as from the facilitator.

It was suggested that the best way to get producers to go to these courses is to offer incentives. For example, tie access to financing to a particular number of hours of training.

A selection of comments from other respondents includes:

- "Need to be more targeted in the approach".
- "You need to present information that these people are not aware of".
- "Make it a networking event".
- "Sponsors need to pick up a share of the costs so farmers can afford to come".
- "Lots of people don't understand management skills while they do understand production skills".
- "There has to be a monetary gain. Training has to have lots of value."
- "Lots of the courses are the same – they aren't changing".
- "Need to motivate people who don't believe there is a future in farming. Dairy people are more likely to attend as there's a huge future in this area".
- "Do not believe in retraining crap. Government policy has forced them (farmers) into a corner and (they're) not interested in getting their kids into the same situation".
- "We have a good industry. It's a little sick but if we don't have any good management skills, with the intergenerational (transition) we are going to have big problems. If there are going to be any subsidies in the future, it should be in management training".
- "Very important stuff. There are 2 classes of farmers out there. You can't target all farmers with one program. Old timers and young ones. The young ones are very bright but don't have the skills. The old ones with experience want to retire. Target the training to 20% of the people doing 80% of the production – the leading edge. Some are young and some are old. If you had them together in one classroom and let them brainstorm, they'd learn so much, the young from the old and vice-versa but they need to be on the leading edge. It's got to go to the leaders in the industry".
- "The number one skill to run a business is people management, interpersonal skills, how to motivate – not sure these are learnable skills, how to interview them and how to do annual review, role-play courses would be good".
- "As far as educating farm leaders for the future, animal sciences and animal stuff is not necessary. You learn that or know that already. This is best-learned hands on. The most important courses were finance courses and policy (i.e., agriculture policy and government policy – municipal, provincial, federal). I knew more about cows than the trainer did. Marketing is also important. Finance, marketing and policy are important and the rest you can learn on the job".
- "If people have to pay, they'll pay more attention to a course".
- "Saskatchewan is at a point where we need to move ahead. The Crow Rate held us back. We take the innovation away from people but if we had tools for economic development it will happen".

The majority of producers were extremely positive about their future. They were quite receptive to further education. Many producers identified the need to focus on business

issues rather than production and agriculture issues. Most respondents expressed the importance of networking with peers who could provide insight.

There are indications that education should be directed at the leading edge producers. Information will need to be leading edge or the approach will need to be radically different from that used in the past in order to attract these producers.

OBSERVATIONS AND CONCLUSIONS

The industry leaders that were consulted all recognize that business skills are important. **In general, the participants consider the industry requires business skills particularly financial management, human resource management and marketing.**

When asked if training was available, participants were divided in their responses. One can assume that those respondents who stated that training is available are aware of the specific training programs. However, of those who indicated that training programs were not available, it could be inferred that:

- a) Respondents are not aware of the programs;
- b) Respondents consider the programs are of poor quality; and/or
- c) The programs are delivered inappropriately.

The comments that accompanied the responses indicate that it is a combination of all three reasons plus the perception of the respondents that many of these skills are innate and cannot be taught. Educators suggest however that while there is an element of 'common sense' embedded in many of these skills, an individual can be taught to develop and hone these skills.

Frequently, only formal learning is thought of as training. This assumption ignores the informal approach when determining availability of training programs. For example, respondents considered formal training events, and with one exception, did not consider organizations such as Toastmasters – organizations that provide excellent opportunities for informal learning in a "learn by doing" setting rather than a formal seminar or lecture setting.

The preferred delivery method of respondents appears to be local short courses. People are looking for interactive programs where they learn as much from other participants as from the facilitator. Trainers and people who deliver courses for adults should be prepared to use techniques aimed at the adult learner. There are a number of different learning styles and the most successful seminars and short courses are those where new knowledge is presented in a variety of ways. Those courses that received high ratings from respondents were the ones that were interactive where the participants have the opportunity to build on previous knowledge and experience.

Agriculture is an applied field and it appears that people understand where their knowledge gaps exist in enterprise-related fields of production and technical skills. However, it seems they do not necessarily understand what they lack in business

management. Business schools and universities often teach these skills through the use of case studies, and the responses to the questionnaire would suggest that this is one method of instruction that could be used when delivering short courses and seminars to the agricultural community.

It is interesting to note that comments regarding the availability of training indicate that training is generally available but is directed at the business community and not at farmers. Again, the use of sector specific examples may dispel this perception.

One area of concern is "skills necessary for the future". While the leaders agreed that these were important skills, they also stated these were the type of skills that could be bought. This is analogous to the situation in the 1980's and '90's when farm operators were encouraged to prepare business plans. Many farm businesses hired consultants and accounting firms to prepare the plans for them.

As a result, while the business manager had a plan to take to the bank, the individual did not have sufficient understanding of the contents of the plan, nor how to implement the plan.

PART FOUR: RESULTS OF INTERVIEWS WITH REPRESENTATIVES OF SELECTED EDUCATION and TRAINING INSTITUTES

INTERVIEW RESULTS

As the focus of this project was on training programs for farm enterprises in Saskatchewan, programs offered through the University of Saskatchewan (Effective Executive Program – EEP), the Saskatchewan Institute for Applied Science and Technology (SIAT), the Saskatchewan Indian Institute of Technologies (SIIT), Regional Colleges and the Agriculture Institute for Management in Saskatchewan (AIMS) - the Agriculture Management Development Program (AMDP) were examined.

In Saskatchewan, the programs vary from the Effective Executive Program (EEP) at the University of Saskatchewan to the Saskatchewan Indian Institute of Technologies (SIIT) program where the focus is on primary agriculture production. In addition, AIMS offers a series of workshops with the AMD Program that introduces agribusiness managers to the principles and elements of business.

An analysis of the program information and the results of interviews with representatives from the selected programs offer the following information:

1. The **Saskatchewan Indian Institute of Technologies (SIIT)** indicates training courses offered for agriculture target mainly the areas of production. The institute has a business certificate program and has in the past incorporated other industries into that program. The representative from that agency noted that it would not be a stretch to incorporate agriculture as a component/elective to the business program. However, SIIT is now part of a task force led by Tom Allen of the University of Saskatchewan to examine the training needs of the First Nations' agriculture community. The task force has not yet made any recommendations. It is expected that future programming in agriculture at SIIT will be dependent on the recommendations of the task force.
2. The **AIMS Program** addresses a range of topics from elements of production through to and including change management. It is a well-recognized program enjoying a good reputation with the producers. The focus of AIMS is to address the management and business needs of the agriculture sector. Its speaker series offers short programs addressing business topics. It has been market driven and in general addresses the requests that it be low cost and provide regional programs. AIMS was instrumental in the establishment of the **AMD Program** and continues to sponsor the program by providing funding directly to producers to attend. The weeklong course focuses on the identification of a business idea and the

development of a business plan for the concept. Market research, financial analysis and networking are critical components of the program.

While the Board of Directors in the past has been driven by industry, government representatives do the ultimate decision-making. **It should be noted that AIMS' funding is only available for another two years.**

3. **SIAST** has undertaken a fundamental review of its agricultural programming both to reflect the changes impacting the agriculture industry and to ensure the continued relevance of SIAST agriculture programming. The review led SIAST to conclude that it should continue to offer:

- Livestock Programming
 - Beef Management Certificate
 - Equine Certificate
 - Pork Production Technician (Apprenticeship)
- Pesticide Training
 - Varying modules for both agricultural and non-agricultural pest control
- Other
 - Custom Harvester
 - Agriculture Machinery Technician
 - Veterinary Technology
 - Welding, Machinery, Carpentry, Air Conditioning
 - Training on demand
- New
 - Entrepreneurial Training for Agriculture
 - Various customized and specialized training as requested by industry
 - Marketing, Leadership and other business courses aimed at agriculture

SIAST will delete the following traditional on-campus certificate programs:

- Farm Business Management
- Crop Production
- Farm Mechanics

4. The **Executive Development Program offered by the University of Saskatchewan** tends to attract the senior business manager in corporations, government and industry and is targeted at agencies exceeding 50 employees. The focus of the programming changes with the needs of the market. The focus for this year will be on "systems thinking". The program coordinator has indicated an interest to work towards meeting the high-level business management needs of the agribusiness community.
5. **Saskatchewan's regional colleges** broker and or develop programs that meet the needs of their surrounding communities. The brokered programs have traditionally been through SIAST but have also been sourced from other institutions. The needs are identified regularly through needs assessments in each of various communities. The colleges have played a critical role in the province in assisting the producers, who have identified niches, develop the production knowledge associated with the various niche opportunities.

In addition to gathering the views of key players in the agribusiness community, the study also assessed current programs that provide training courses for the agribusiness manager and the executive manager. (Appendix 5) (Note that at the outset, the direction was given to examine production skills programs. These programs are also listed in Appendix 6. It was during the first Study Sponsor Group meeting that the focus changed to business skills.)

A review of several programs (See Appendix 5) offering executive management and agribusiness programs from across Western Canada provides the following general observations:

- ❑ There is no single program that addresses all the business skills requirements of business managers;
- ❑ The new versions of these programs have shifted the emphasis of their training to include topics such as strategic thinking, critical analysis, financial analysis and leadership;
- ❑ The programs that target the agribusiness manager offer programming that focuses on production and introductory business management;
- ❑ The executive management programs do not target the primary agriculture industry to attract potential participants; and
- ❑ Among the executive management programs and many of the agribusiness programs, there are core courses that are thematic among all programs including:
 - Financial management;
 - Human Resources Management;
 - Marketing; and
 - Communication.

To compare the Saskatchewan programs with similar programs in other provinces, executive management and agribusiness programs from the University of Alberta, Olds College, the Banff School for Advanced Management and the Queen's Executive Development Program were also examined.

Interviews were conducted with representatives of nine agencies that provide training and education programs for agribusiness and executive managers (See Appendix 3).

Interviews with representatives of three programs including the Banff School for Advanced Management (BSAM), the University of Alberta Centre for Executive Management Development (CEMD), and Olds College Competitive Advantage Program for Agriculture (CAPA) yielded the following observations:

1. The BSAM will cease operations. The joint venture partners (including the University of Saskatchewan) have indicated they are not prepared to compete with the "massive" marketing budget of Queen's and have decided to close the program. The BSAM does not target the primary agriculture agribusiness manager but has had representation from value added agriculture and food corporations.
2. The CEMD is in its second year of operation. The target market for this Program includes:
 - ❑ Government;
 - ❑ Information technology companies;
 - ❑ Manufacturing companies; and
 - ❑ Resource based companies.

The CEMD does not target the primary agriculture agribusiness manager but does have representation from corporations that are described as value added agriculture and food companies.

The CEMD Program was restructured following extensive research of the executive management training needs of corporations in the Calgary and Edmonton regions. The research was undertaken to assess the relevancy and effectiveness of the CEMD's previous executive management programs. The CEMD also provides extensive custom training for government and industry. This business comprises 15 – 20% of the program's current business but is the fastest growing element of the CEMD program and expectations are for this element of the program to exceed 40% of the total training business. The changes that have been made to the programming include the addition of courses in areas including:

- ☐ Awareness of global social, political and economic issues;
- ☐ Strategic thinking;
- ☐ Critical analysis;
- ☐ Leadership;
- ☐ Financial Analysis;
- ☐ Project Management; and
- ☐ Risk Analysis.

3. The **Queen's Executive and Management Development Program** is also new and is in its second year of full operation. Queen's also underwent a review of its former programming and concluded there was need to restructure. The new Queen's program highlights 12 topics:

- ☐ Strategic Planning;
- ☐ Leading Change;
- ☐ Leadership;
- ☐ Sales Management;
- ☐ Strategic Alliances;
- ☐ Managing New Ventures;
- ☐ Project Management;
- ☐ Information Technology;
- ☐ Finance;
- ☐ Marketing;
- ☐ Operations; and
- ☐ Human Resources.

Among the representatives interviewed of the executive management programs, there is general acknowledgement the new Queen's Executive Development Program is among the best in Canada.

4. The **Competitive Advantage Program for Agriculture (CAPA)** at Olds College is in its second year of operation. Like the previous programs, Olds undertook a review of the programming it was providing to the primary agriculture agribusiness manager and concluded the program needed to be restructured to reflect the changes occurring in the industry (increased emphasis on diversification, adding value to commodities and a greater focus on the "business" rather than the "production" elements of the industry).

As a result of the review, the program now offers the following core courses:

- ☐ Business planning;
- ☐ Financial management strategy;

- ❑ Improved communications and negotiations; and
- ❑ Development of human resources management skills.

The primary participants in this program tend to be "teams" – husband/wife, father/son. These teams are looking to find ways in which to expand opportunities to acquire revenue for their farm business.

The program began its new operations accepting 10 – 12 participants. Due to extensive demand for the program, the acceptable participant limit is now up to 20 and usually has a waiting list. The Program is offered three times a year between November and January.

CONCLUSION

- ❑ There is no apparent attempt on the part of these agencies to coordinate their program development and delivery of business skills programs for the agribusiness manager.
- ❑ Generally, the philosophy of most programs appears focused on providing training for the farm enterprise and the farm family with the "production" and the "lifestyle" elements forming the basis for the training. The AMDP and AIMS programs do provide courses that focus on bringing the Saskatchewan agribusiness manager to a level where he/she is thinking of their enterprise as a business.

PART FIVE: THE STRATEGY

PROPOSED STRATEGY

Rationale for Change

The Federal and Provincial Departments of Agriculture and Food are encouraging the agriculture industry to diversify and add as much value to the commodities as possible prior to shipping products to market.

This objective of capturing greater revenues by adding value to raw commodities implies the need to have a strong and competitive primary agriculture sector. It means a change in thinking about the traditional role of agriculture in the food continuum.

In the agriculture industry in Western Canada, the elimination of the Crow Benefit was meant to encourage change. The change was intended to support the development of a livestock industry in areas where there was great ability to produce high quality and reasonably priced feed grains. Ultimately, this would also lead to increased activity in adding value to the animals before leaving the province.

The change was not without debate!

Other changes have impacted the agriculture industry as well. Mergers, acquisitions and consolidations have become common occurrence in the agriculture and food industry – particularly in Saskatchewan. The grain elevator companies have been replacing the traditional wooden grain elevator with large, centrally located concrete structures.

The purchasing decisions of the large grocery chains have all but disappeared from Saskatchewan – the companies transferring these functions to head offices in Calgary, Vancouver and Toronto.

Food safety, quality assurance and environmental management are increasingly evident in conversations among agribusiness managers and the business plans of agribusiness enterprises.

Moreover, all players in the value chain – including producers – are being increasingly held accountable for the products they manufacture and market. Being able to trace the product from “gate to plate”, branding products, tailored production and niche markets are becoming standard elements of doing business in the agriculture and food industry.

As agriculture enterprises struggle to remain competitive, agribusiness managers are being challenged to identify new sources of revenue. Diversification and adding value are examples of ways in which managers have responded to this need.

Traditionally, producers have viewed their operation as a "production" unit that provides the farm family with a source of income. As indicated above, the agriculture industry landscape is changing. Wheat is no longer the dominant crop. Specialty crop processing facilities dot the prairie landscape. Communities – led by leaders in agriculture – are working to acquire value added processing activity for their commodities. Agribusinesses are becoming commonplace in Saskatchewan.

An agribusiness implies the business views the production unit as only one of its "lines of business" to acquire revenue to support the business. This is not unlike the "corporate" world where a corporation may own "a number of businesses". Many of the successful farm enterprises have turned their operations into agribusinesses with several lines of business. Two examples follow:

Example "A"

Agribusiness that:

- ☐ Grows a selection of crops;
- ☐ Owns a cleaning and bagging line;
- ☐ Operates a small consulting business coordinating conferences, and
- ☐ Provides custom seeding, spraying or harvesting services.

Example "B"

Agribusiness that:

- ☐ Raises beef;
- ☐ Owns an abattoir and an approved processing facility; and
- ☐ Owns a small retail facility.

Each of these agribusinesses and their respective lines of business are intended to capture market opportunities in the agriculture and food industry. They are using the lines of business not only to capture an opportunity but also to increase the bottom line of the enterprise in order for the owners to afford to remain on the farm.

Change or perish is a common cliché – and although it is all too often true, it is almost always difficult to accept!

Acquiring the necessary skills to deal with change will be critical to the success of these managers.

Communicating a vision of the opportunities that diversification and value added hold for the growth of the agriculture industry at a time when the industry is struggling to remain competitive will indeed be a challenge for industry leaders.

The challenge for these agribusiness managers and the leaders in this industry is to acquire skills that will:

- ☐ **Support the achievement of their vision;**
- ☐ **Keep their industry competitive;**
- ☐ **Remain on the forefront of innovation and new technology;**
- ☐ **Expand and grow the industry; and**
- ☐ **Provide people and families with opportunities to do business.**

The reasons are varied from allowing these managers and their families a lifestyle to stay on the farm to securing supply for their value added business activity.

As the results of the survey indicate, the respondents identified these issues. The survey respondents acknowledge the need to acquire training to enhance their "business skills" rather than focus on the more traditional production training. Respondents also acknowledge that change is an issue. There was clear reference by respondents to "being able to adapt to change (and) being effective at information transfer".

The value of networks and "leading edge" thinking suggests a need for an ability to think more strategically – to ensure the businesses are manufacturing the products demanded by consumers.

Marketing information - how to find it, analyze it and use the information to strategically grow the business - is further evidence these managers recognize that training and the development of new skills will become increasingly important as they attempt to expand their business and grow their industry.

The survey also suggests that respondents believe the current programming and the approach to delivering the training programs is not working. This perception is perhaps the most significant impediment to the success of most of the training programs.

Respondents recognize the importance of training in growing and managing a business and they acknowledge the need to participate in training programs. However, the results of the survey suggest that respondents believe the current programming is not working. This is perhaps the most significant impediment to the success of most of the training programs. Their criticism includes:

- ☐ Lack of agribusiness examples – practical examples;
- ☐ Professional facilitators not familiar with the industry;
- ☐ A lack of hands-on activity in the training sessions;
- ☐ A need for increased interaction among the candidates with the facilitator
- ☐ Not "leading edge";
- ☐ Should be a "how to" approach to training rather than a "telling" approach;
- ☐ Coordination of programs; and
- ☐ Program awareness.

THE CONCEPT: The establishment of a
Centre for the Training and Education of
Agribusiness Managers and Industry Leaders is recommended.

The approach to training for agriculture leaders and innovators in the new millennium is outlined below. The Concept acknowledges the existence of credible programming and program delivery agencies. The Concept **IS NOT** intended to duplicate these programs. Rather, the Concept is meant to build on the strengths of these programs.

The development of the concept is based on the following assumptions:

1. That the **agribusiness managers and leaders are not a homogeneous group** and they can be divided into three groups:
 - The new – emerging agribusiness manager;
 - The established manager; and
 - The senior manager - leader.
2. There will be three types of agribusiness operations in the future:
 - The small, intensive agribusiness;
 - The intermediate, niche market agribusiness, and
 - The large, commodity based agribusiness.
3. Throughout the literature, the words “innovator”, “leader” and “entrepreneur” are used interchangeably. Whereas creativity is an individual process, innovation is a group process. (Parthenon Innovation Group – “Innovators Handbook”). The concept will be based on the following definitions:

Innovation is a response to increasing pressure from the market place to meet the demands of the changes in the market place. This “innovation” can be about seeking creative solutions to problems; and innovation can be about ideas to capture market opportunities. This innovation comes about by challenging the status quo of doing business. Innovation involves both technology and organization and is driven by the need to meet changing consumer demands and to remain competitive in the market place.

Entrepreneurship is about taking advantage of a business opportunity, establishing an enterprise to conduct the business and obtain a profit from capturing the business opportunity. Entrepreneurship is about using innovation to solve problems and to create opportunities.

Leadership is about getting others to follow. A leader is often seen as having a vision – whether it is for an industry, a town or a province - and convincing others to follow the vision. Leadership is about establishing an environment in which innovation can occur – about getting others to see the value of an idea – about getting others to confirm the value of an innovation and to embrace the innovation as a way to solve a problem or to create an opportunity. And leaders can be very

senior in their position where the impact of their leadership is immediate, or, leadership can be at a level of a middle manager where the leadership is often more long term in effect. (Harvard Business Review – March 2002)

Management is about the business of making the enterprise work – about ensuring the enterprise achieves its objectives efficiently and profitably.

It is not uncommon to regard entrepreneurs and innovators as being one and the same. As well, it is not uncommon to see the business manager and the entrepreneur as one and the same. (From Entrepreneurship to Entrepreneurology by Louis Jacques Filion, HEC – The University of Montreal)

The Function and the Form of the CENTRE

The Centre would operate with the following goals and objectives.

Goals of the proposed Centre

- ❑ To establish a Centre for agribusiness education and training programs in Saskatchewan that is widely recognized by all training institutes and the agriculture industry; and
- ❑ To have Saskatchewan agribusiness managers embrace globalization of world of business and to be profitable in the global market place.

Objectives of the proposed Centre

1. To **facilitate** the development of training courses focused on core programs including financial management, human resource management, marketing, leadership, strategic thinking, communication and critical analysis;
2. To **develop or acquire** access to courses that will meet the needs of different levels of management – new, emerging manager; established manager; senior manager - leader; and
3. To **coordinate** the development and the delivery of training programs for all agribusiness managers and leaders in Saskatchewan.

Note: The Centre is **not** meant to add another layer of programs. Rather, it is designed to facilitate and coordinate the delivery of current programs to the target market and to ensure the development of new programs as required.

Target Market of proposed Centre

- ❑ The Saskatchewan primary agriculture industry agribusiness managers and leaders.

The targeted candidates for the training programs would then include:

- ❑ The new or emerging manager:
 - This individual may be new to the business of agriculture; younger than older; post secondary educated; and
 - The emphasis would be on creating an awareness of the various elements of doing business – of establishing, operating and growing a business.
- ❑ The established manager:
 - This individual will have some formal management experience; may have already attended some training courses; and
 - The emphasis will be on integrating the elements of operating a business; project based approach to learning; interactive and hands-on, practical examples; agribusiness examples.
- ❑ The senior manager – industry leader:
 - This individual will have 5 – 10 years of management experience; the experience increasing in responsibility and authority; will be seen as a leader among their peers.

[Note that one category of farm manager is identified in the Federal Provincial Agreement as the low-income farmer. The Agreement will address programs targeting that group.]

The Structure of the proposed Centre

The **CENTRE** would be a legal entity. Its location would be well suited to Saskatoon where there are programs and services already being provided.

The **CENTRE** would be funded by federal and provincial agencies such as Saskatchewan Learning and may be led by the Saskatchewan Council for Community Development (SCCD) (See Diagram 1). Funding arrangements needs to be explored.

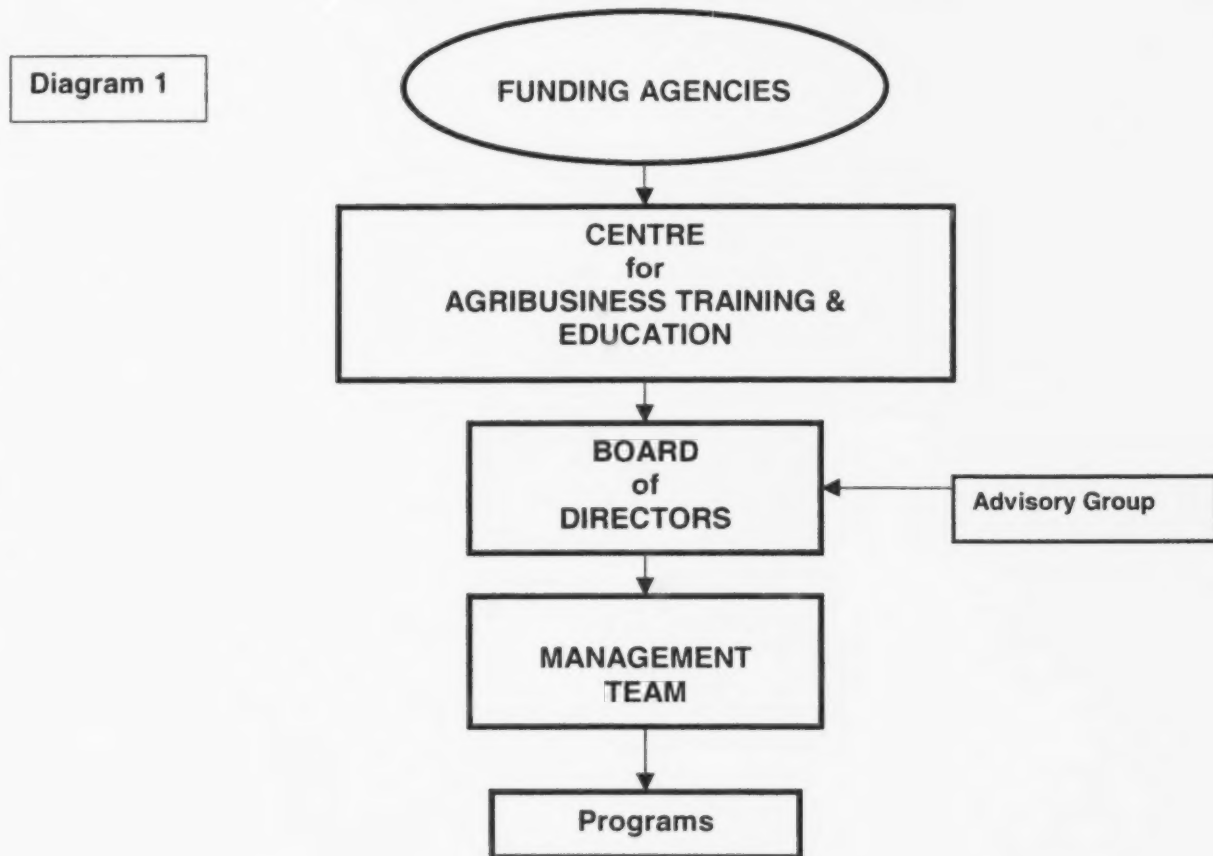
Ultimately, a Board of Directors would oversee the direction of the **CENTRE** and a management team would be hired to operate the **CENTRE**. The Board would be comprised mainly of agribusiness managers (selected from each of the three described levels of the target market) and representation from both government and financial institutions.

To have representation on the Board from any training and education institute may be viewed as a conflict of interest. Any advice required by the Board from such an institute could be brought to the Board as and when required. In order to ensure input from this valuable source, however, there may also be the opportunity to establish an "advisory group" that might include representation from any such institute. This "advisory group"

could be requested to provide expert advice to Board members as requested or on an ongoing basis.

Diagram 1 on the following page outlines the proposed structure of the Centre.

Diagram 1: Structure of the Proposed Centre



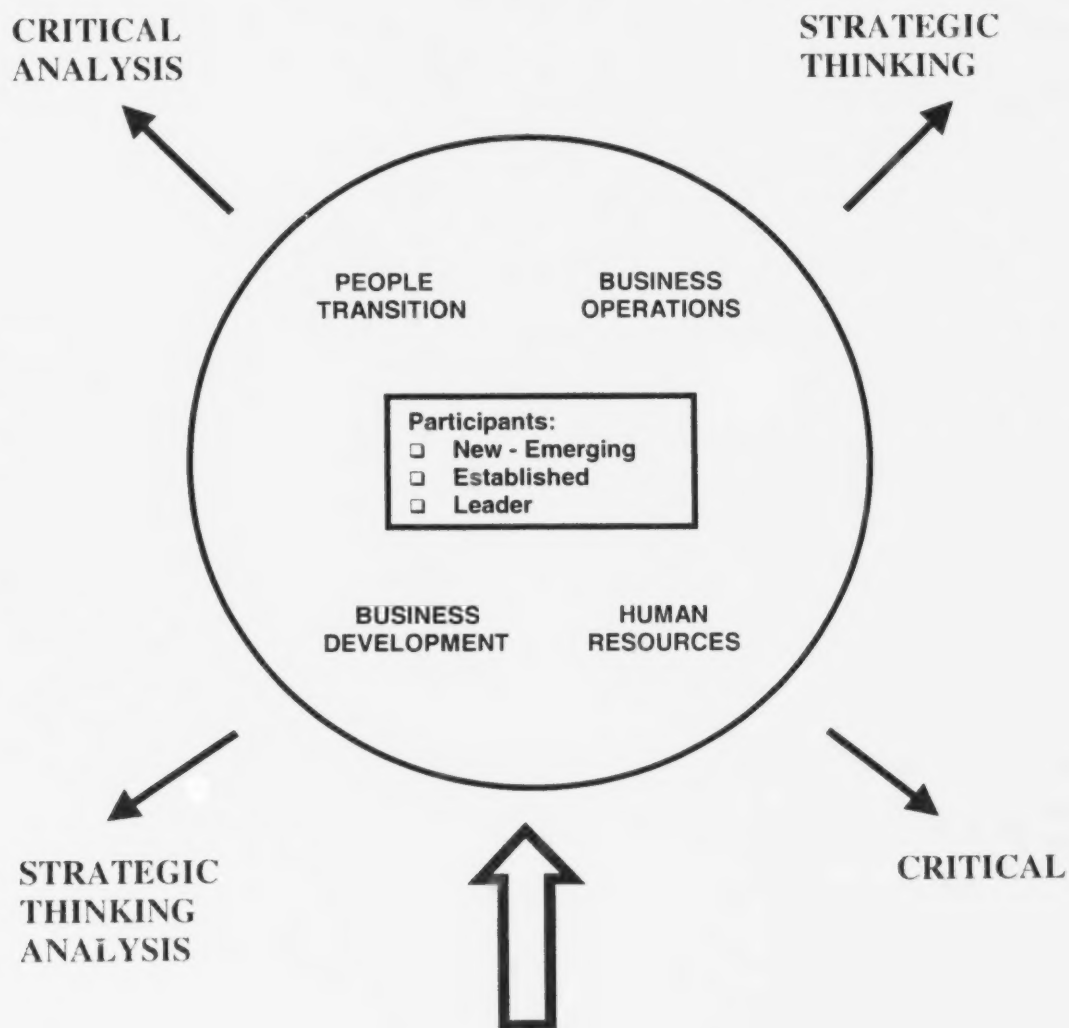
A review of the literature and the results of the survey indicate there is an implicit understanding that all managers require skills in selected areas – albeit the training and skills required will be at different levels of understanding, detail and intensity for each of the targeted participants.

The focus of the training programs will be to move all agribusiness managers to a level of ability to think strategically and to critically analyze market and business intelligence. As a result, program delivery agencies will need to work closely together to ensure the training needs of these managers are met. (See Diagram 2)

Diagram 2: Areas of Training Needs

Diagram 2

AREAS OF TRAINING NEEDS



DELIVERY AGENCIES

While there would be differences in the detail and intensity of the programming provided to the different levels or categories of managers, there would be several standard themes throughout all three categories. The key areas of programming would include:

- ❑ Financial Management;
- ❑ Human Resource Management;
- ❑ Marketing;
- ❑ Leadership;
- ❑ Communication;
- ❑ Strategic Thinking;
- ❑ Critical and Analytical Thinking; and
- ❑ Business Operations.

Partnerships and alliances provide opportunities to eliminate duplication and share the costs of providing a product and/or a service. The concept proposed in this report presents an ideal opportunity to:

- ❑ **Reduce the duplication and share costs among provincial and federal agencies** that have similar training and education mandates. There are other agencies such as Human Resources Development Canada (HRDC) also in the business of training (offering one example to establish a partnership to oversee and share costs for the *CENTRE*);
- ❑ **Establish alliances among institutes and programs** that offer programs and courses to meet the skill development needs of current and future agribusiness managers and leaders; and
- ❑ **Examine ways in which financial incentives** – in partnership with the various financial institutions - **could be used to attract potential candidates.**

There is evidence the survey respondents believe it may be time to think about novel ways in which to attract potential participants to the training programs. As respondents indicated, they find numerous “excuses” to forgo attending any of these training opportunities. “Not enough time”, “too expensive”, “not relevant” were some of the reasons cited.

The concept of a “Centre” also offers the opportunity to involve financial agencies that provide financial services (including debt financing and equity capital) to these agribusinesses.

As each of these agribusinesses expand their operation – take on a new line of business – new capital or financing will be required. When the representatives of these venture capital and financial agencies are asked to provide their view on the three elements necessary to grow a profitable business, “management” is always identified as the most critical element. To encourage these agribusiness managers and leaders to participate in these training programs, it may be possible to encourage the financial agencies to consider providing financial incentives. These incentives could take the form of interest rate considerations or cash rebates to the businesses where managers can demonstrate successful completion of a program.

As well, in an environment of scarce resources, there is benefit in looking to programs already in existence as an alliance building opportunity. The literature clearly demonstrates there are many programs already in existence (See Appendices 5 & 6). Many of the agencies that provide these programs are in various stages of program evaluation – assessing the relevancy of the programs and the institution's ability to meet the training needs of the agribusiness client.

For the various shorter workshops and seminars that would be focused on the needs of the emerging or new manager, some of the delivery agencies may be better suited than others to develop and deliver the programming. These programs /courses would be periodically scheduled throughout the year, easily delivered at a time and location conducive to the needs of this level of manager.

For the established manager, a more intensive training environment would be required. These programs would likely be longer. Interactive training with their peers, providing an agriculture focus and offering an opportunity to introduce strategic thinking and critical analysis to the training program are benefits to managers at this level. Programs such as the AMDP are examples from which to build.

For skill development in advanced critical analysis and strategic thinking, attendance at a well recognized 2 – 4 week executive management program would be recommended. These courses would offer candidates an opportunity to be exposed to the "thinking" of managers in other industries. In addition, these agribusiness managers would be exposed to training and thinking in a global market environment. Programs such as those offered by the Universities of Calgary, Alberta, Saskatchewan and Queen's provide such opportunities.

Deficiencies in Current Programming and Program Delivery

As stated in the project objectives, the study is to identify the "inconsistencies" in the programming currently available from training institutes, the needs of the present day agribusiness manager and the apparent needs of the future agribusiness manager and industry leader.

The results of the interviews with selected agribusiness leaders indicate there are deficiencies in programs offered to agribusiness managers. Respondents suggest that current programming does not provide adequate agribusiness related examples. They also indicate a concern that facilitators are not experienced in the agriculture industry. The literature review suggests a need to address topics such as critical analysis and strategic thinking. While several of the executive management development programs offer courses in these areas, there is no indication the programs target the agribusiness manager with similar courses.

A review of programs for agribusiness and executive managers indicates there is no single program that will necessarily meet all the training needs of a manager. However, **the gap is the lack of connectivity between the agribusiness manager and current training programs.**

The institutes that currently offer training programs appear to regard agribusiness managers as a homogeneous group. To be effective in providing training services, the

program should account for different levels of knowledge and awareness among potential candidates.

Advantages of the Centre

The survey indicates there are producers who are not and do not intend to participate in training programs. They are too old – want to retire – or do not really see the value in acquiring new skills for an operation that is not economically viable.

It is for these reasons the proposed Centre will focus on providing services to the agribusiness managers and leaders who believe there are opportunities to grow the industry and want to capture opportunities as a result of the growth.

The advantages of this Centre include:

- ☐ Industry led and directed;
- ☐ Visibility of the programming is increased;
- ☐ Profiles the value of training and education as a key element in growing a highly competitive and value-added agriculture and food industry;
- ☐ “One-stop-shop” for training and education programs and services;
- ☐ Holistic approach;
- ☐ Innovative;
- ☐ Provides flexibility;
- ☐ Allows for increased turnaround time for decision making about training programs;
- ☐ Potential to involve a wide range of partnerships and alliances;
- ☐ Potential for cost sharing with the Federal Government;
- ☐ A model / template for other provinces and industries;
- ☐ Increased ability to work with other provinces; and
- ☐ Less intimidating than a university or other agency.

Disadvantages of the Centre

- ☐ Could be seen as bureaucratic;
- ☐ Will not address the needs of ALL producers;
- ☐ Might be costly to operate;
- ☐ The idea / concept of the Centre may still not get the job done;
- ☐ May not be financially sustainable; and
- ☐ May be seen as duplicating services already provided by other agencies in its coordination role.

PART SIX: CONCLUSION & RECOMMENDATIONS

CONCLUSION AND RECOMMENDATIONS

The changing demographics, advances in technology, globalization, environment issues and food safety are factors that are having a significant impact on the growth and development of the agriculture and food industry in Saskatchewan.

Large, capital intensive farming operations – medium, product specialization, niche, value-added operations – small, intensive operations manufacturing high value products will be a result of the changes occurring in the agriculture and food industry.

The consequences require a shift in how producers / agribusiness managers manage their businesses. Management training – learning how to grow a business – will become increasingly important as agribusiness managers learn to do business in a global market place.

Leading edge thinking and analytical capabilities are examples of new skills required by industry leaders as government and industry strive to guide producers to achieve a vision of a competitive, technologically advanced and profitable agriculture and food industry in Saskatchewan.

The evidence points to a realization of the need for training and the opportunity for provincial institutions and programs to take a proactive and innovative approach to coordinating, developing and delivering the training and education programs for the new generation of agribusiness managers and industry leaders.

The following **recommendations** are therefore made:

1. **A Centre for Agribusiness Training and Education, led by an industry Board of Directors, managed by a not-for-profit organization and overseen by a Federal/Provincial partnership should be established.** This will demonstrate a commitment to provide an infrastructure offering programs that will allow the agribusiness managers and industry leaders to develop and hone their business management and leadership skills. This model recognizes the importance of collaboration among all programs offering these courses currently in the province to avoid duplication in program offerings. It is not the intention of this entity to go into competition with the current programs but rather to facilitate the delivery of the appropriate programs through current institutions and agencies.
2. **Alliances with training programs in other provinces should be formed.** The alliances will mitigate the risk of duplication and perhaps allow for program specialization.

3. **Financial institutions and equity funds should be approached for participation in the model.** These funding agencies may be enticed to provide an "incentive" role for agribusiness managers and industry leaders who graduate from these programs.
4. **The target market for this entity should be the new or emerging manager, the established manager and the senior manager.** The goal will be to move agribusiness managers to a level of ability to think strategically and to critically analyze market and business intelligence.
5. **The training should focus on training the agribusiness managers in people transition, business operations, business development and human resources.**

The critical areas of programming are:

- Financial management;
- Human resource management;
- Marketing;
- Leadership;
- Communication;
- Strategic thinking;
- Critical and analytical thinking; and
- Business operations.

Note that primary production programs are still required by the industry but are currently being addressed. See Appendix 6 for a list of courses.

6. **The needs of the Aboriginal and Metis agribusiness manager should be an integral part of the Centre.** Institutes such as the Saskatchewan Indian Institute of Technologies (SIIT), Gabriel Dumont Technical Institute, Saskatchewan Indian Federated College, and Dumont Technical Institute should be approached to be part of this collaborative approach.
7. **The needs of the at-risk farmer will need to be addressed through other programs.** The Centre could act as a "pathfinder" for steering the at-risk farmer towards programs such as the Farm Consultation Service (Agriculture and Agri-Food Canada) or the Family Farm Opportunities Initiative (Saskatchewan Agriculture Food and Rural Revitalization).
8. **An awareness program is required to ensure that agribusiness managers are made aware of the training programs available to them.** The program should also ensure that a two-way communication process is built in so that the needs of the industry are addressed and updated on a regular basis. Consideration should also be given to raising the awareness of these training opportunities with the youth of the province who wish to enter the agricultural profession.

The opportunity is at hand! Leadership is required.

EPILOGUE

The strategy was presented by the consulting team to the Study Sponsor Group on Monday, March 25, 2002. **The strategy was agreed to in principle.**

The Study Sponsor Group made the following observations:

- ❑ There should be a public policy that reflects the need for training and the value of a Centre to coordinate the development and delivery of the training programs in the province.
- ❑ The implementation of the strategy needs to be preceded by a business plan that includes a sustainability plan.
- ❑ The Centre may need to integrate "production" related training programs (Consultant's comment: This needs to be carefully considered as there appears to be a real need, and demand, for agribusiness training).
- ❑ First Nations training strategy and resulting needs should be reflected in the programs delivered.
- ❑ Prior to enrolling in a training program, an applicant could undergo a training needs assessment.
- ❑ The Centre could be "virtual".
- ❑ The Centre may wish to deal with the training needs of farm workers (those not in management positions).

NEXT STEPS

- ❑ The Study Sponsor Group met on December 11, 2002 to discuss how to proceed with the report's eight recommendations. The Group believes the recommendations will enhance the relationship between those who are seeking agribusiness training opportunities and those who provide training.
- ❑ An interim committee was established to move forward with developing a Centre /clearinghouse for information on agricultural and agribusiness training opportunities. Committee members are representatives of educational institutions, farmers, commodity groups, financial institutions, Aboriginal and Metis representatives, provincial and federal government representatives, SACTAC member and a representative from community organizations.
- ❑ The interim committee will meet early in the new year to develop a marketing package to promote the Centre. This package will be shared with educational institutions and Centre target audiences such as commodity groups, etc.
- ❑ The interim committee will determine a strategy for obtaining seed money to support the marketing and development of the Centre.
- ❑ A communications plan will be finalized and implemented. The plan will include releasing the report in the new year through a news conference or news release and a copy of the report will be provided to government officials, Study Sponsor Group members, commodity groups, educational institutions and other interested parties.
- ❑ Networking, partnering and collaboration will continue to be defined and implemented, including:
 - Identifying and developing strategies for recognition of prior learning

Saskatchewan Council for Community Development

- Increasing employer and industry involvement in human resource planning and development
- Improving agriculture sector responsiveness to developing and maintaining a skilled workforce.

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APPENDIX I

INVENTORY OF HUMAN RESOURCE SKILLS ASSESSMENTS, STUDIES AND REPORTS

Year	Jurisdiction	Name of Study	Description
2002	Manitoba	<i>Rural Adaptation Needs Assessment</i> In preparation for a number of stakeholders in Manitoba. Prepared by Carl Cunningham, WESTARC Group Inc., Brandon University, Manitoba	Investigation into the adaptation, succession and transition needs of agricultural producers in rural Manitoba To be completed April 2002
2002	Saskatchewan	<i>Saskatchewan Cattle Feeders Education and Training Needs Assessment</i> In preparation for the Saskatchewan Cattle Feeders Association by Bob Brady. Part of the Post Secondary Education and Skills Training Sector Partnership Program	Investigation into the educational and training needs of the cattle feeder industry To be completed April 2002
2002	Saskatchewan	<i>Carleton Trail Regional College</i> In preparation for Carleton Trail Regional College by Murray Bailey	Evaluating the education and training needs of agriculture service providers in the Carleton Trail Regional College service area. To be completed April 2002
2001	Canada	<i>Business Skills for the Future. Workshop Report (Oct 18-19, 2001) for the Federal/Provincial Sub-Committee on Identification of Business Skills for the Future</i> (Rural Renewal Initiative of the Whitehorse Agreement) Prepared by Garven & Associates Ltd. For Agriculture and Agri-Food Canada.	To identify business skills that will be needed by farm managers in the future and develop programs and delivery mechanisms that will assist farm managers analyze their business and identify potential market opportunities. The Business Skills Sub-Committee is a working group of the Federal-Provincial-Territorial Whitehorse Agreement that is targeting rural renewal as one of its key elements.
2001	Canada	<i>Discussion Paper on Management Skills for the Future. Prepared for Federal Provincial Working Group Committee on Business Skills for the Future.</i> (Rural Renewal Initiative of the Whitehorse Agreement) Prepared by Anita Lunden, Agriculture Business Management Branch, Alberta Agriculture, Food and Rural Development	Review of 5 studies on management issues and management challenges.
2001	Saskatchewan	<i>AIMS- Future Mandate</i> Prepared for the Agriculture Institute of Management in Saskatchewan (AIMS) by Hodgins and Company Management Consultants and Klassen and Associates Financial Management	AIMS Program Evaluation The report highlighted interview results regarding challenges in farming in the last decade and challenges facing farmers in the next 2 years

Saskatchewan Council for Community Development

2001	Saskatchewan	<i>Woodlot/Agro forestry Management Course Development Study</i> Prepared by Trimension Training and Consulting Group Inc. Prepared for Saskatchewan Post Secondary and Skills Training (PSEST) Sector Partnerships Program	Development of training courses to meet the needs of woodlot/agro forestry managers. Phase 1: Identification of opportunities and training needs for woodlot and agro forestry management in the Northeast Region.
2001	Saskatchewan	<i>Trends in Saskatchewan Agriculture "Implications for Agricultural Training"</i> Prepared by Garven & Associates Ltd. for the Saskatchewan Institute of Applied Science and Technology.	Highlighted agricultural trends that impact on Saskatchewan agriculture Prepared profiles (industry status and infrastructure, opportunities and constraints, future growth potential and training opportunities for nine sectors (agri-fibre, agro forestry/woodlot, commercial greenhouses, ethanol, First Nations' agricultural opportunities, food processing, nutraceuticals and functional foods, pulses and organics)
2001	Canada	<i>Results of CFIB Surveys on the Shortage of Qualified Labour</i> Prepared for Canadian Federation of Independent Business by Doug Bruce and Andrea Dulipovici, CFIB	Investigated the labour needs of small business in major industry sectors in different regions across Canada
2001	Saskatchewan	<i>Saskatchewan Agriculture Committee on the Rural Economy-Agriculture Subcommittee Report</i> Red Williams (Chair)	Profiled the primary agriculture sector in Saskatchewan and reviewed agricultural trends that will impact on agriculture in this province. Made recommendations to pursue opportunities in the feeding industry, organic production, niche markets and recommended changes to the transportation and logistics system in Saskatchewan
2001	Saskatchewan	<i>Saskatchewan Agriculture Sector-Trends and Training Issues. Focus Group Report</i> December 4, 2001 Prepared for Saskatchewan Institute of Applied Science and Technology, Business and Agriculture Division by Garven & Associates Ltd.	Study for Saskatchewan Institute of Applied Science and Technology. Discussion of agricultural trends that will have impact on the future demand for education and training in Saskatchewan.
2001	Saskatchewan	<i>Action Committee on the Rural Economy (ACRE)</i>	Tasked with identifying the initiatives and that will revitalize the rural communities in Saskatchewan.
2001		<i>Needs Assessment Profile-Financial Management.</i> Prepared for Alberta Agriculture, Food and Rural Development.	Identified what tasks were most important in the area of financial management. Information is to be used to guide the development of future training and information.

Saskatchewan Council for Community Development

2000	Saskatchewan	<i>Food Processing Sector Partnership</i> Prepared for Saskatchewan Food Processors Association and Saskatchewan Post Secondary Education and Skills Training Prepared by Trimension Training and Consulting Group Inc., Saskatoon, SK	An in-depth study into the HR issues and training needs of Saskatchewan food processing industry.
2000	Alberta	<i>Farm Labour and Wage Rate Survey 2000</i> Prepared for the Agricultural Business Management Branch of Agriculture, Food and Rural Development by AGRINET Management, Training and Employment Services	Survey to determine job descriptions and wage rates for farm labourers in Alberta in the poultry, swine and cattle industries.
2000	Alberta	<i>Needs Assessment Profile-What Successful Managers Do</i> Prepared for Alberta Agriculture, Food and Rural Development	Initiated to guide curriculum development for an advanced program in agriculture business management (now called the Competitive Advantage Program for Agriculture). Successful managers were asked to describe the tasks that contributed to their success. More than 400 tasks were identified, ranked and then grouped into 10 competency bands.
1999	Saskatchewan	<i>Youth Unemployment and Skills Shortages in Saskatchewan</i> Saskatchewan Labour Force Development Board	Study to examine skill shortages in designated trades and to find out why unemployed youth are not seeking entry to those trades.
1999	Saskatchewan	<i>Workforce Training Incentives: Options for Saskatchewan</i> Prepared for the Saskatchewan Labour Force Development Board by the Canadian Labour Market and Productivity Centre (Ottawa, On)	Identification of training incentive options for businesses in Saskatchewan
1999	Alberta	<i>Business Management Skills for the New Millennium.</i> <i>Presentation at Western Canada Dairy Seminar 1999, Advances in Dairy Technology-The Tools for Success in the New Millennium</i> Leonard Bauer (University of Alberta), Bob Burden (Serecon Consulting Group, AB)	Identified four management issues needed to address an expanding primary agriculture economy in Alberta Identified 10 managerial skills critical to success in primary agriculture
1999	Saskatchewan	<i>Summary Report, Saskatchewan Farm Forum, December 1999</i> <i>"If You Were the Government, What Would You Do?"</i>	Farm Industry Leader discussion about the future direction of agricultural & impact on provincial agriculture budget planning. Addressed issues regarding research & technology transfer, trade & marketing, safety nets, environment, regulatory services, sector change, transportation, farm costs, education & human resources, & rural communities.

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1999	Alberta, Manitoba and Saskatchewan	<i>1998 Western Canadian Benchmark Survey</i> Prepared for Agriculture Institute of Management in Saskatchewan, Alberta Farm Business Management Initiative, Manitoba Farm Business Management Council Prepared by Garven & Associates Ltd.	Benchmarked the current position of western Canadian farmers and ranchers with respect to awareness of farm business management resources and organizations, training interests, preferred information gathering techniques, interest in using technology and current farm business management techniques. Determined the commonalities and differences in farm business practices across the Prairie region.
1998	Alberta	<i>The Changing Structure of Farm Businesses as the Industry Expands to the Year 2005—Phase II of An Assessment of Business Management Skills Required by Primary Agri-Industry in 2005</i> Prepared for Alberta Agriculture, Food And Rural Development by Serecon Management Consulting Inc.	Step One: Identified key factors that would affect the shape and structure of farming businesses in the decade ahead. These included the restructuring of small farms to large farm enterprises, net reduction of people involved in primary agriculture, increase in diversity and use of business agreements, human resource issues, regulatory issues, and environmental and food safety issues.
1998	Alberta	<i>Business Management Issues in Alberta's Expanding Primary Agriculture Sector – Phase II of An Assessment of Business Management Skills Required by Primary Agri-Industry in 2005</i> Prepared for Alberta Agriculture, Food And Rural Development by Leonard Bauer, University of Alberta	Step Two: Identified the management development needs of the primary agriculture industry in the year 2005. Identified five major issues: transition management, business development, employee relationships, operating relationships and sector specific management.
1998	Alberta	<i>Management Challenges for Alberta's Farming Industry for the Year 2005</i> Prepared for Alberta Agriculture, Food And Rural Development by Gerry Bradshaw and Paul Gervais	Step Three: Final Report: A summary of challenges and deficiencies in management skill. for agri-industry in the year 2005. Identified 10 areas that managerial skills would need to address. Included transition issues, information management, economic and investment analysis, negotiating skills, employee management, family and group dynamics, communications and leadership, environmental and food safety management, agricultural technology management

1998	Saskatchewan	<i>Saskatchewan Sector Study: Summary Report.</i> Prepared for Canada-Saskatchewan Strategic Initiatives Saskatchewan Post-Secondary Education and Skills Training and Human Resources Development Canada Prepared by Trimension Training and Consulting Group Inc, Saskatoon, SK	Identified and examined trends, and current and future human resource issues and needs in nine industrial sectors in Saskatchewan These sectors included: • Agri-value, • Energy, • Information technology and communications, • Tourism, • Construction, • Fabricated metal manufacturing, • Business services, • Forestry Mining.
1997	Canada	<i>National Farm Business Management Instructional Resource Gap Analysis</i> Prepared for the Canadian Farm Business Management Council by Garven & Associates Ltd.	Identified gaps in instructional resource material for farm business managers. Found that higher-level analytical-type courses for farm business managers were missing.
1997	Canada	<i>Effective Farm Business Management Practices and Performance Measures</i> Prepared for the Canadian Farm Business Management Council by Garven & Associates Ltd.	Study designed to help farm managers and farm management service providers identify the skills required to effectively manage a farming operation.
1996	Saskatchewan	<i>A Review of Existing Farm Business Management Reports and Benchmark Studies (in Saskatchewan)</i> Prepared for Agriculture Institute of Management in Saskatchewan (AIMS) by Kwame Agyirey-Dwakye	To review existing farm business management evaluations and studies To identify needs of Saskatchewan farmers through analysis of existing information. To identify gaps in existing farm business management information, training and support services To identify trends in farm business management practices in Saskatchewan
1996	Canada	<i>Canadian Framework for Effective Farm Business Management Practices</i> Canadian Farm Business Management Council	Develop a national framework for the development of national resource material that describes and enhances effective farm business practices in Canada.
1994	Canada	<i>Identifying Management Differences between Farmers in Canada</i> Prepared for Canadian Farm Business Management Council by Wayne Howard, George Brinkman and Remy Lambert.	Objectives: • To identify management differences between high, medium and low margin farmers. • To determine management practices that lead to effective decision-making and success in farm income generation. Evaluated 65 farm enterprises to determine management differences. Identified distinct groups of managers (top, good and average) based on management styles and results achieved. Identified the key actions and skills of top managers.

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			Also identified key strengths in a second grouping of successful managers: mega-managers, supply managed commodity managers and prairie grain producers.
1993	Saskatchewan	<i>Farm Business Management Skills Matrix and Training Development Plan</i> Prepared for Agriculture Institute of Management in Saskatchewan (AIMS) by Garven & Associates Ltd.	Development of a farm business management skills matrix for AIMS to outline the competencies and skills needed by a farm manager. Compiled a list of farm management competencies in planning for farm business, human resource, financial, production, and marketing. Also identified complementary skills (computer, negotiation skills, communication skills etc.) that would support the farm management skills. Identified instructional gaps in farm business management courses in Saskatchewan
1993	Saskatchewan	<i>AIMS Evaluation Project. Current Farm Business Management Practices in Saskatchewan. Benchmark Survey. Preliminary Report</i> Prepared for Agriculture Institute of Management in Saskatchewan (AIMS) by Garven & Associates Ltd.	Conducted a benchmark survey to establish an understanding of the current farm business management practices currently being utilized in Saskatchewan. Survey results to assist AIMS in their strategic planning activities.
1993	Canada	<i>Training Needs of Canadian Farm Women</i> Prepared for the Canadian Farm Women's Education Council by Garven & Associates Ltd.	Training needs assessment study for Canadian farmwomen. Developed a profile of the Canadian farmwomen and her commitment to training. Identified the training needs and training barriers as well as recommended methods of delivery for training. Developed an annotated bibliography (up to 1993) of research literature on farmwomen.

APPENDIX 2

LIST OF INTERVIEWS OF LEADING AGRICULTURE INDUSTRY PLAYERS

Keir Boldt
Elaine Bowy
John Cote
Kelvin Meadows
Grant Payant
Gary Meier
Florian Possberg
Jean Pogu
Don Meier
Bruce Ferguson
Sylvia Meszoros
Ken Nabor
Charlie Bear
Brian Weeden
Isabelle Wendell
Presilla Mah
Don Voss
Lloyd Affleck
Gil Pedersen
Trevor Hannay
Henri O'Reilly
Shannon Story
Dave Bailly
Lorne Christopherson
Marge Lebrash
Ian Cushon
Bob Ivy
Gilbert Leroy
Bart Chute
Shawn Buhr

APPENDIX 3

**LISTING OF THE INTERVIEWS WITH REPRESENTATIVES OF SELECTED
EXECUTIVE MANAGEMENT DEVELOPMENT PROGRAMS**

Valerie Mushinski	Cumberland Regional College (306) 862 - 9833
Randall Morris	Saskatchewan Indian Institute for Training (306) 477 - 9206
Brenda Stefanson	Agriculture Institute of Management for Saskatchewan (306) 966 - 8927
Fred Oster	University of Saskatchewan – Effective Executive Program (306) 966 –
Kathy Bosse	Olds College – Advanced Management Program for Agriculture 1-800-661-6537
Sandy Penrose	Banff School of Advanced Management 1-888-762-6127
Scott Young	University of Alberta – Centre for Executive and Management Development Program (780) 492 – 8502
John Derrick Clark	Queen's Executive Development Program 1-888-393 – 2338

APPENDIX 4

QUESTIONNAIRE FOR AGRICULTURE SKILLS ASSESSMENT SURVEY

Good morning. Thank you for agreeing to participate in the agricultural skills assessment survey. The government is interested in determining which skills are required to run a successful and profitable agricultural business. The comments will help Saskatchewan Post Secondary Education and Skills Training with the information to develop programs for managers in the agriculture sector.

Do you have any questions about the interview before we get started?

1. Which sectors of the agriculture industry are you involved with? (Please indicate all)

Crops	19	Livestock (cattle, hogs)	14	Poultry	1
Honey	4	Greenhouse/nursery	4	Christmas trees	1

2. Do you see opportunities for your sector? **28** Yes **2** No

Lack of opportunities are due to respondent leaving the industry, one respondent considers supply for present market filled.

3. What are they?

Opportunities

- ☐ Value added and further processing
- ☐ Ability to trace product to end user
- ☐ Organic production for large and small operators
- ☐ Access to good resources, labour pool, capital
- ☐ Feedlot sector-cost of production is lower than Alberta
- ☐ Increased farm size
- ☐ Demand for beehives in area, opportunity for expansion,
- ☐ Market direct to wholesalers
- ☐ Plant crop specialist, grower and retail end, garden centres
- ☐ Export grain market, cattle
- ☐ Access to new markets will lead to increased sales and profits
- ☐ Growth in branded products
- ☐ Hybrid canola production and other specialized crops
- ☐ Opportunities in horticulture, sour cherry production
- ☐ Expansion dynamic and growing industry. Increased production, export markets
- ☐ Increased use of irrigation

Barriers to Opportunities

- ☐ Potential for growth that will flatten out
- ☐ Limited commodity based opportunity
- ☐ There is export market to be developed.
- ☐ *Christmas tree market:*
- ☐ 40% people use live trees, however, 1-3 operators can fill this market.
- ☐ Need for better management skills and operations

4. Do you think you will be able to take advantage of these opportunities?

24 Yes 5 No

If yes, how?

- ☐ Have knowledge for protocol of food safety programs,
- ☐ Technology-to trace product, enter information into web to build resume, make contracts that are awarded based on resume
- ☐ Have been doing it for 10 years, market opportunity, decreased cost of production
- ☐ Apprenticeship program on harvesting- program expanding
- ☐ Being able to adapt to change, being effective at information transfer and by having good goals in place
- ☐ By hiring people with knowledge
- ☐ Can bid on calves with lower prices because of low cost of production; financing is always a limiting factor-look where, how, and using management
- ☐ Cheapest feed stuff
- ☐ Increase cow herd size
- ☐ Niche markets
- ☐ New irrigation projects running, value added in house
- ☐ Put together different business structures, establish formalized joint ventures
- ☐ Use strategic alliances

If no, why not:

- ☐ Government policies
- ☐ No capital to invest
- ☐ No desire to expand
- ☐ Going to retire

5. These business skills have been identified as useful in managing Lets look at a number of business skills that have been identified as important. Please rank them on their importance to running a successful and profitable enterprise.

1 being least important and 5 most important

SKILL	RANKING					AVAILABLE	
	1	2	3	4	5	YES	No
Time management—set priorities and meet deadlines				9	21	14	15
Use of computer software appropriate to your business needs		1	10	10	8	26	3
Use of the internet for information in business decisions	2	3	8	12	5	22	7
Ability to identify and solve problems (analytical skills)			1	5	24	12	16
Understanding contractual agreements		4	6	7	13	16	11
Negotiating skills			6	9	14	10	19
Oral communication with employees, colleagues and business people			3	9	18	18	10
Written business correspondence, reports		2	7	14	7	15	15
Presentation skills	1	3	10	9	7	19	10
Meeting management: chairing meeting		5	10	7	7	15	15
Ability to manage conflict		2	8	9	11	16	13
Delegate responsibility				15	15	9	21
Encourage and motivate			5	10	15	14	15
Developing remuneration package (including benefits)	1	1	4	17	5	5	23
Understanding what your customer wants			4	7	19	13	16
Identify market opportunities			1	5	23	16	13
Implementing the marketing strategy		1	1	9	18	19	9
Risk management		1	1	10	18	20	9
Goal setting			9	12	16	20	10
Conducting economic analysis of the business		2	2	5	21	26	4
Managing finances				3	27	21	8

6. Are these skills important when planning for the future of your business? If they are, rank them in order of importance 1 through 4 with 1 being most important.

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Skills important when planning for future	Number of respondents Saying Yes	Number of respondents who identified each skill according to importance. (4 most important)			
		1	2	3	4
Agricultural technology management skills (researching new technologies and deciding which ones to adopt)	27	6	9	7	6
Creating alliances with input suppliers	21	12	6	4	6
Management on on-farm food safety systems (compliance with regulations and consumer demands)	26	6	2	9	11
Environmental management skills	29	3	11	8	6

Comments

- ☐ Technology -knowledge based issue, must understand production issues to do research in order to cut production costs, info is as important as technology.
- ☐ Business perspective is different from political perspective
- ☐ Environment -rather see protection from chemicals than carbon (sink)
- ☐ Choices may not be left to me because of legislation on environment and food safety
- ☐ Don't need to learn these skills, can go to other people to get information
- ☐ Alliances are important if trying to minimize inputs, not important when trying to maximize revenue
- ☐ Importance changes with time frame, but none of these in the next five years, in the next two years order: 1-techn, 2-alliances, 3-food safety, 4-environment

7. Are there any other skills that you think are essential to running a successful and profitable enterprise?

21 Yes **8** No

If yes, what are they?

- ☐ Environmental management
- ☐ Accounting, equipment, succession planning
- ☐ Hands on in operations
- ☐ Human relations, financial information
- ☐ Timing-right place at right time
- ☐ Able to look at big picture, analyze risks on global scale;
- ☐ Gut feeling
- ☐ Disease management- technology, pest management, production
- ☐ Mental health, general health, skills in dealing with financial institutions, communication skills
- ☐ Listen to people's needs
- ☐ Budgeting, salesman skills
- ☐ Animal husbandry, equipment operator, operational skills, mechanic, welding, carpentry
- ☐ Not much opportunity for women, who are not of farm background to learn basic farming skills, many learned early age by 4H.
- ☐ Public relations-peer groups and community

- ☐ Ability to change government policy- lobbying skills
- ☐ Cultural diversity and aboriginal getting into market
- ☐ Human resource skills
- ☐ Self discipline about finding out current issues, knowledgeable of the market trends and industry trends
- ☐ Acquiring capital and managing it, how to get capital for large scale business
- ☐ Economic training, financial and accounting, analyzing financial reports
- ☐ Can't teach many qualities (e.g. salesman, farmer)
- ☐ Take time to do accounting, fiscal accounting and motor skills, not prioritized
- ☐ Develop a positive attitude and be motivated
- ☐ Paperwork: bookkeeping skills, field records

8. Having identified some of these skills do you have problems finding employees?

17 Yes **11** No

- ☐ Not enough young people to fill low wage jobs
- ☐ 1A license training
- ☐ Mill operations, chemical applicators
- ☐ Seasonal
- ☐ It will get harder, presently using retired farmers
- ☐ Not enough experience, seasonal workers
- ☐ Animal management interests and abilities
- ☐ Have aptitude, but no trained skills
- ☐ Hands on "cowboy stuff"
- ☐ Hard to find experienced people because we are such a new and small industry
- ☐ Poor attendance, can't find the right skills
- ☐ Hiring from Australia-bee keeping, horticulture experience
- ☐ Cattle people: vaccinate, castrate, etc., hard to find people to drive trailers
- ☐ Barn tech staff shortage-qualified managers (animal science degree will know production, but need management skills)

9. What skills/characteristics do you look for in an employee?

- ☐ Timeliness, work ethic, pleasant, trainable
- ☐ Mechanically inclined, some farm experience
- ☐ Lack of skilled labour- able to follow instructions, documentation, complete tasks requested of them
- ☐ Experienced with farm equipment and farming, reliable and trust to take care of details
- ☐ What can you afford, what they can do; trustworthy, solid worker, production skills, ability to use technology
- ☐ Hard working, punctual, fairly intelligent, good work ethic, Class 1A driver's license, farm labour
- ☐ Physical strength, labour
- ☐ Multi-task skills- fix machinery, reading skills, communication skills, computer literacy, safety training, CPR and First Aid
- ☐ Motivated, upbeat, want to be here, punctuality, ability to operate equipment
- ☐ Production experience with bee keeping, skilled, will return next year

- ☐ Seasonal workers, experienced bee keepers
- ☐ Honesty, work ethic, care and love for work, stamina, punctuality, self-motivation, planning, customer service
- ☐ Product knowledge, experience, work ethic
- ☐ Seasonal availability, not concerned with skills
- ☐ Animal skills and interests, supervising and middle management skills, operations management skills
- ☐ See if talents fit- best skill set, problem solving is important
- ☐ Adaptable, thinking on their feet, literate, follow directions, writing skills
- ☐ Ambitious, hardworking, aggressive, trainable
- ☐ People who understand people management, operation of industry, day to day skills, unit operation skills, challenge is operational skills
- ☐ Horsemanship, machine operation, affordable
- ☐ Self starter, time management, reliable
- ☐ Large scale hog operations experience: breeders, farrowing pigs, selecting hogs, operations (University or SIAST not good enough),
- ☐ Good attitude, interest in working with animals, education and experience, potential to become managers)
- ☐ Good attitude, conscientious, hard working- don't mind teaching skills, self-starter, reliable, trustworthy
- ☐ Hard worker, willing to work, trainable, some important skills (e.g. butcher)
- ☐ Seeds man production course, hybrid canola, irrigation
- ☐ People that can run heavy machinery and equipment, hard to find them, also look for agronomists, clones?
- ☐ Operate machinery, horticulture

10. Do you hire any custom or contract workers e.g., combine accounting etc.

22 Yes 7 No

- ☐ Custom grain hauling, building repair, professional services
- ☐ Combining, professional services
- ☐ Combining, chemical application, grain hauling, professional services
- ☐ Most labour under contract, accounting, lawyer
- ☐ Grain haulers, pesticide application, professional services, fixing stuff
- ☐ Accounting, transportation, salesperson skills, physical, processing
- ☐ Field operations, contract workers, financial and business planning
- ☐ Harvesting, spraying, accountant, lawyer
- ☐ Professional services, electrical, marketing, plumbing
- ☐ Less now than before: custom sprayers, combine, accounting, professional services
- ☐ Corral cleaning, professional services, custom spraying
- ☐ Sprayers, clean corrals, accounting, lawyer
- ☐ Tax purposes only
- ☐ Haul grain, livestock haulers
- ☐ Welders, construction
- ☐ Construction, legal
- ☐ Cowboys
- ☐ Regular chores, trucking, fencing, welding, network of neighbours and friends for branding

- ☐ HR, breeding, AI, nutritionist
- ☐ Custom top grinding, corral cleaning, lawyer, accountant
- ☐ Corral cleaner, haying, professional services
- ☐ Future: heavy machinery mechanic
- ☐ Harvesting, pollination

11. When you think of the business owners in your area which skills, if any, do you think they most need to improve?

- ☐ Sharing, networking, listening skills, punctuality
- ☐ Creating professional image, financial skills
- ☐ Many not involved politically in order to get to know system
- ☐ Overall great respect for all farmers
- ☐ Mediation, time management, efficiency, effectiveness, goal setting, lobbying skills to government
- ☐ Public relations skills-with industry
- ☐ Procrastination
- ☐ Non-sexist toward women in Agriculture
- ☐ Strategy planning, food safety, public relations because growing, risk management
- ☐ Motivation
- ☐ Need to understand more who their market is
- ☐ Finances, marketing, communications
- ☐ Can always improve, mostly good
- ☐ People skills, financial management, risk management, working on relationships
- ☐ Assessing needs of clients, marketing
- ☐ Farmers don't challenge status quo, lots of divisions are based on: "the way my father did it", nothing much changes

12. You must deal with a lot of information all the time. What three most important types of information do you need to run your business?

- ☐ Market situation and prices
- ☐ Market-price, costs
- ☐ Weather and environmental data
- ☐ Technology
- ☐ Production
- ☐ Political
- ☐ Input costs
- ☐ Financial and management
- ☐ Business plan
- ☐ Disease identification and control
- ☐ Bee diseases and pests
- ☐ Chemical information
- ☐ World grain supply report, cattle number reports
- ☐ World weather reports
- ☐ CWB-projection on prices
- ☐ Commodity: research, production
- ☐ Educational-price affects risk management
- ☐ Government policies that affect operation (Trade Agreement)
- ☐ Historical data on performances and finances of livestock
- ☐ Resource management - re: cattle, feed, water
- ☐ Research
- ☐ Human resources: staff schedules
- ☐ Internal communication
- ☐ Internal records/production info
- ☐ Production records, hog prices, market trends, slaughter data

13. Where do you get this information?

Number of respondents using each method:

- | | |
|--|---------------|
| 20 Internet | 7 TV |
| 23 Magazines | 15 Books |
| 20 Industry organizations | 20 Newspapers |
| 16 Newsletters | |
| 17 Commercial companies that sell product | |
| 31 Trade shows including Crop Production Show | |
| 27 Other: peers, customers, extension staff (public and private), banks, DTN satellite | |

14. To help you in your ability to manage your operation, did you attend any training programs in the past two years?

Yes No

15. What types of training in which you have participated?

- ☐ AIMS Agribusiness Management Development Program
- ☐ Financial risk management

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- ☐ Commodities trading, involved in consulting co, peer to peer, being guided by coaches, PMG managing groups, financial analysis, marketing, technical skills
- ☐ Logistics, Canadian International Grains Institute, marketing
- ☐ Excellence in Agriculture - Quebec, SK Pulse Growers- conferences (research production)
- ☐ Contractual agreements
- ☐ Canadian Ag Leadership Program (CAL)
- ☐ Disease management, production from Honey Council
- ☐ Workshop on business management
- ☐ Farming practices-beef and forage, soil and crops, tours of CWB
- ☐ Time management- Skillspath,
- ☐ Livestock production, Robbie Pritchard- S.D. feedlots
- ☐ Saskatchewan Committee Rural Development, Leadership, Rural Development
- ☐ Prairie Swine Centre, management,
- ☐ Conflict resolution (Denise Blakely- Learning Edge)
- ☐ Corporate policy that all staff be involved in continued education: trade show, industry specific internal seminars
- ☐ Saskatchewan Cattle Feeders- autopsies, forward contracting, AI, welding
- ☐ OHS Level 1, skillspath, PPT training, H2S
- ☐ Certificate in Business Administration
- ☐ Board Basics
- ☐ Canadian International Grains Institute
- ☐ Reindeer nutrition and antler growth
- ☐ SK Pulse Growers- conferences (research production)
- ☐ How to handle media

16. Why do you think it is so difficult to get agricultural managers to attend from attending training programs? (Rank this 1 to 5 to give a better idea of what really prevents them from taking training)

19	Lack of time	8	Cost
	Cost		
1	Courses are not provided in an appropriate format.	2	Training not specific enough
1	Lack of awareness	5	Too far away

Other:

- ☐ Previous program not beneficial
- ☐ Older farmers don't believe they will benefit
- ☐ Not interactive, intimidating
- ☐ Too basic because tries to encompass too many areas,
- ☐ Don't see value, unaware of benefits, don't care to look into it
- ☐ Lack of motivation, complacency
- ☐ Timing-January is only good time to take a course
- ☐ Has to be monetary gain
- ☐ Courses aren't changing as industry is changing
- ☐ Need to be very valuable, information is not leading edge
- ☐ Info overload
- ☐ Conflicting stuff
- ☐ Don't need anymore
- ☐ Embarrassed that skills are lacking, some farmers have very little computer, reading, basic skills
- ☐ Lots of people don't understand management skills when they understand production skills
- ☐ Prefer to use a mentor
- ☐ Quality of course
- ☐ Know it all, nothing new offered, not interested
- ☐ No one to delegate authority (middle management problem)
- ☐ They have off farm jobs
- ☐ Courses are generally too long (<5days is too long)
- ☐ Intimidated- feel they don't have the skills
- ☐ Want to get hands "dirty", hands on experience
- ☐ Unwilling to commit ahead of time

What do you think is the best method of delivering management programs for agricultural managers?

1	Distance education	6	Internet
14	Short courses	0	SIAS
3	University	1	Certificate
4	Correspondence		

OTHER

- ☐ Interactive courses
- ☐ Face to face, CAL-combo of internet and face to face expensive
- ☐ Face to face, group courses with industry players
- ☐ Classroom setting
- ☐ Person to person oral presentations- classroom setting
- ☐ Small groups, away from home, one-on-one interaction
- ☐ Anything anyway, keep it varied to suit a large number of different types
- ☐ Seminars, interactive

- ☐ Face to face discussion with peers and presenters
- ☐ Mentorship programs
- ☐ Community colleges
- ☐ Remote universities
- ☐ Seminars (opportunity to get together)
- ☐ Government developed course vs. user pay
- ☐ Short-term workshops (fee will make people more attentive)
- ☐ Cal program and AIMS AMDP (e.g. 2 days/week for month)
- ☐ 1 to 5 day course with lots of networking
- ☐ Experts from all different areas (e.g. Kansas City: North American Seed Trade)
- ☐ Previous program not beneficial
- ☐ Older farmers don't believe they will benefit
- ☐ Not interactive, intimidating
- ☐ Too basic because tries to encompass too many areas,
- ☐ Don't see value, unaware of benefits, don't care to look into it
- ☐ Lack of motivation, complacency
- ☐ Timing-January is only good time to take a course
- ☐ Has to be monetary gain.
- ☐ Courses aren't changing as industry is changing
- ☐ Need to be very valuable, information is not leading edge
- ☐ Info overload
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- ☐ Don't need anymore
- ☐ Embarrassed that skills are lacking, some farmers have very little computer, reading, basic skills
- ☐ Lots of people don't understand management skills when they understand production skills
- ☐ Prefer to use a mentor
- ☐ Quality of course
- ☐ Know it all, nothing new offered, not interested
- ☐ No one to delegate authority (middle management problem)
- ☐ They have off farm jobs
- ☐ Courses are generally too long (<5days is too long)
- ☐ Intimidated- feel they don't have the skills
- ☐ Want to get hands "dirty", hands on experience
- ☐ Unwilling to commit a head of time

APPENDIX 5

A LISTING OF SELECTED EXECUTIVE MANAGEMENT DEVELOPMENT PROGRAMS IN WESTERN CANADA

BRITISH COLUMBIA

Program Name: UBC Executive Education - Business Seminars
Program Type: Seminar
Program Length: Seminars range in length from 1 – 6 days
Institution Provider: University of British Columbia Department of Commerce
Program Description: The program provides concise, focused short business seminars to corporate managers. These seminars provide a training option for managers seeking to address specific issues important to their business success.
The business seminars are available throughout the year at the UBC Robson Square location in Vancouver and other selected sites throughout the province.
The Program utilizes the services and experience of UBC instructors, corporate managers and private consultants with selected background expertise.
Seminar topics include:

- ☐ Communication and Negotiation
- ☐ E-Business
- ☐ Financial Management
- ☐ General Management
- ☐ Human Resource Management
- ☐ Leading People
- ☐ New Managers, and
- ☐ Sales, Marketing and Customer Service

Contact:

UBC Commerce
2053 Main Hall
Vancouver, B.C.
V6T 1Z2
Ph.: (604) 822-8500
Fax: (604) 822-8521
www.commerce.ubc.ca

Program Name: UBC Executive Education – Management Development Programs
Program Type: Classroom
Program Length: 3 – 6 days
Institution Provider: University of British Columbia – Department of Commerce
Program Description: The Management Development Programs are designed to expand the corporate managerial skill set and add a fresh, contemporary framework to a manager's business experience. Course programs include:

- ☐ Meeting the Leadership Challenge
- ☐ Developing Your Strategic Plan
- ☐ Implementing Strategic Plans
- ☐ Managing Professional Service Organizations
- ☐ Preparing Business Plans
- ☐ Financial Statement Analysis for the Non-Accountant
- ☐ Performance Management

Corporate Partnership Services:

The Program offers corporations the following services:

- ☐ Needs assessment
- ☐ Performance gap analysis
- ☐ Competency profiling
- ☐ Measurable results
- ☐ Cost savings from outsourcing
- ☐ Innovative Program Design

Contact:

UBC Commerce
2053 Main Hall
Vancouver, B.C.
V6T 1Z2
Ph.: (604) 822-8500
Fax: (604) 822-8521
www.commerce.ubc.ca

Program Name: Executive Management Development Program
Program Type: Classroom
Program Length: Each session is three days in length
Institution Provider: Simon Fraser University – Burnaby, B.C.
Program Description: The Program is a concentrated program for mid to senior level managers and executives who want to be leaders in the 21st century. The Program is designed to help develop new perspectives on management while expanding existing business skills. The program is designed to:

- ☐ Enhance the ability to think strategically across the industry and organization
- ☐ Increase the understanding of key functional areas in business management, and
- ☐ Improve your personal effectiveness as a manager and leader

Instruction is varied and depends on the course. Lectures, individual and group participation, and hands-on training make up different parts of the program while methods range from pre-readings, presentations and case studies, to work-related assignments. Upon completing a three-day session, participants are challenged to apply their learning in the workplace and to complete a brief paper on this application.

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Most participants will have six to ten years of managerial experience in positions of increasing responsibility and authority.

The courses consist of:

- ☐ The Leadership Challenge
- ☐ Economic Landscape
- ☐ Strategic Management
- ☐ Marketing Management
- ☐ Financial Management
- ☐ Managing Information
- ☐ Negotiation & Conflict Resolution
- ☐ Organizational Behavior

Contact:

Continuing Studies
Simon Fraser University
Ph.: (604) 291-5100
Fax: (604) 291-5098
www.sfu.ca

ALBERTA

Program Name: Management Certificate Program
Program Type: Workshops
Program Length: Each workshop is two days
Institution Provider: Grande Prairie Regional College
Program Description: This series of workshops focuses on developing the leadership and teamwork skills that enables participants to work together for a common purpose. The workshop topics include:

- ☐ Interviewing, Selection and Motivation
- ☐ Decision making and problem solving
- ☐ Coaching and Counseling
- ☐ Delegating and Making Meetings Productive
- ☐ Time Management
- ☐ Coping with Difficult People

Contact:

Grande Prairie Regional College
Grande Prairie, Alberta
Ph.: (780) 539-2975
www.gprc.net

Program Name: Executive Development
Program Type: Courses - classroom
Program Length: Each program/course is 2 – 5 days
Institution Provider: University of Calgary – Faculty of Management

Program Description:

The two – five day programs are designed for professionals to enhance knowledge, to develop new leadership skills, and to learn new techniques for mapping strategies, managing change and stimulating innovation.

Courses/Programs include:

- ☐ Competitive Marketing Strategies for Technology-Driven Firms
- ☐ Drawing on the Full power of Leadership
- ☐ Financial Analysis and Decision Making
- ☐ High Performance Negotiating
- ☐ Leadership for Technical Managers
- ☐ Managing Service Quality and Customer Satisfaction
- ☐ Project Management for Executives

Contact:

Calgary Centre for Executive Education
Faculty of Management
University of Calgary
2500 University Drive, N.W.
Calgary, Alberta
T2N 1N4
Ph.: (403) 220-6600
Fax: (403) 284-7914
www.ucalgary.ca

Program Name: Management Essentials
Program Type: Classroom
Program Length: Each course is one day
Institution Provider: Calgary Centre for Executive Education – University of Calgary

Course Description: Management Essentials is a twelve-day survey of management fundamentals. This program exposes participants to new concepts and emerging issues, and emphasizes integration and application of concepts to today's organizational challenges and issues. Management Essentials provides practicing managers and professional with the knowledge and confidence to succeed in a dynamic work environment.

Participants will gain:

- ☐ Strong overall business acumen and understanding
- ☐ Tools and techniques to identify and enhance their perception in core business processes
- ☐ Increased understanding of the interrelationships among functional business areas
- ☐ Knowledge of emerging business challenges that are transforming the corporate landscape
- ☐ Enhanced ability to communicate and work with other professionals and senior management
- ☐ Self-awareness and understanding that will assist in developing leadership and coaching skills, as one prepares to take on increased responsibilities

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- ❑ A foundation in a broad array of key managerial competencies which will provide building blocks for further development

Core courses include:

- ❑ Strategy Formulation
- ❑ Leadership
- ❑ The Marketing Plan
- ❑ E-Business
- ❑ Business Information/Introduction to Project
- ❑ Financial Accounting
- ❑ Exploring International Opportunities
- ❑ Principles of Financial Management
- ❑ Project Management
- ❑ Management Accounting
- ❑ E-Technology
- ❑ Human Resource Management
- ❑ Financial Decision Making
- ❑ Risk Management
- ❑ The Strategic Role of Operations
- ❑ Corporate Social Responsibility
- ❑ The Marketing Process
- ❑ Information Systems Design and Development
- ❑ Process Measurement and Improvement
- ❑ Strategy, Corporate Context and Implementation

Contact:

Calgary Centre for Executive Education

Faculty of Management

University of Calgary

2500 University Drive, N.W.

Calgary, Alberta

T2N 1N4

Ph.: (403) 220-6600

Fax: (403) 284-7914

www.ucalgary.ca

Program Name:	Professional Development Business Seminars
Program Type:	Seminar
Program Length:	A series of day long presentations
Institution Provider:	Calgary Centre for Executive Education – University of Calgary
Program Description:	The program is developed in partnership with the various professional associations in Calgary. The seminars include: ❑ Introduction to Finance and Control ❑ International Business ❑ Risk Management ❑ Project Management ❑ Business Ethics

Contact:

Calgary Centre for Executive Education

Faculty of Management
University of Calgary
2500 University Drive, N.W.
Calgary, Alberta
T2N 1N4
Ph.: (403) 220-6600
Fax: (403) 284-7914
www.ucalgary.ca

Program Name: Banff School of Advanced Management

Program Type: Classroom

Program Length: Not available

Institution Provider: Banff School of Advanced Management

Program Description:

The program is a joint venture of the Universities of Alberta, Calgary, Manitoba and Saskatchewan. The BSAM mandate is to deliver the latest in management training while promotion overall personal and professional well being.

Study topics include:

- ☐ Core Operations
 - Financial Reporting and Management Information
 - Creating Financial Value
 - Business Systems and ProcessesMarketing Management and Customer Orientation
- ☐ Corporate Strategy
 - Strategy Management and Organizational Design
 - Strategic Thinking and Management
- ☐ The External Environment
 - Canada and the World Economy
 - Globalization
 - Ethical Dilemmas in Leadership
- ☐ Leadership
 - Leadership – The Individual
 - Leadership in Organizations
 - Leadership and Change

Contact:

Banff School of Management
Box 1020 - Station 5
Banff, Alberta
T0L 0C0
Ph.: (403) 762-6127
1-888-762-6127
Fax: (403) 762-6127
www.bsam.ca

Program Name: Competitive Advantage Program for Agriculture

Program Type: Classroom – workshop environment

Program Length: 10 days

Institution Provider: Olds College

Program Description:

The Competitive Advantage Program is an intensive 10 – day experience that will help you understand the strategic planning process and provide you with knowledge, tools and support to develop and implement a strategic business plan. As a result of the Program you will be able to identify and build on your unique competitive advantage. The Program will change the way you think about your business and the agriculture industry. The expected outcomes from participating in the program include:

- ☐ Develop your own business plan
- ☐ Develop financial management strategies
- ☐ Improve communication and negotiation skills for dealing with conflict and building relationships
- ☐ Use effective marketing processes and strategies
- ☐ Develop effective human resource management strategies

Contact:

Olds College Extension Services
Agricultural Business Management Branch
4500 – 50 Street
Olds College
Olds, Alberta
T4H 1R6
Ph.: 1-800-661-6537 ext.: 4684
www.oldscollege.ab.ca

SASKATCHEWAN

Program Name: Effective Executive Program

Program Type: Classroom

Program Length: 2 weeks

Institution Provider: University of Saskatchewan – College of Commerce

Program Description:

The Effective Executive Program is a learning experience for all middle and senior managers and rising executives. Participants represent the full spectrum of the working environment – small companies, large corporations, new ventures, established firms, government departments and agencies, and non-profit organizations.

A variety of courses are covered including:

- ☐ Effective Leadership and Strategic Management
- ☐ Aboriginal Issues
- ☐ Management Control Systems
- ☐ Creative Thinking
- ☐ Effective Business Communication
- ☐ Strategic Marketing
- ☐ Decision Making
- ☐ Board Governance
- ☐ Economic, Social and Political trends
- ☐ Management of Change

Contact:

Business Advisory Services

College of Commerce
25 Campus Drive
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 5A3
Ph.: (306) 966-8686
Fax: (306) 966-5408
www.commerce.usask.ca

Program Name: Agriculture Institute of Management in Saskatchewan (AIMS)
Program Type: Seminars and Workshops – Online and Classroom
Program Length: 1 day
Institution Provider: AIMS
Program Description: AIMS delivers the Farm Business Management Program in Saskatchewan. It is a Federal-Provincial initiative between Agriculture and Agri-Food Canada and Saskatchewan Agriculture and Food
Program topics include:

- ☐ Grain and livestock marketing
- ☐ Diversification
- ☐ Financial management
- ☐ Production management
- ☐ Environmental management
- ☐ Succession planning

Contact:
AIMS
Agriculture Institute of Management in Saskatchewan
Box 21038
101 – 15 Innovation Boulevard
Saskatoon, Saskatchewan
S7H 5N9
Ph.: (306) 975-8927
Fax: (306) 975-8929
www.sccd.sk.ca/aims/

Program Name: Agribusiness Management Development Program (AMDP)
Program Type: Classroom – workshop; case-based educational program
Program Length: 1 week
Institution Provider: University of Saskatchewan
Program Description: AMDP provides an environment in which a participant can gain an understanding of the new era in agribusiness management, achieve goals and growth through effective agribusiness planning strategies and successfully manage integrated agribusiness organization.
Concepts covered include:

- Marketing
- Human Resource Management

- Finance/Accounting

Contact:

AIMS
Agriculture Institute of Management in Saskatchewan
Box 21038
101 – 15 Innovation Boulevard
Saskatoon, Saskatchewan
S7H 5N9

Ph.: (306) 975-8927
Fax: (306) 975-8929
www.sccd.sk.ca/aims/cwp.htm

MANITOBA

Program Name: Management Development Programs
Program Type: Workshop – seminar, classroom or on-site
Program Length: 1 – 3 days
Institution Provider: University of Manitoba
Program Description:

The Program is designed to help support middle, senior and high potential managers and business professionals maintain their competitive advantage in today's fast-paced, ever-changing environment. The courses are interactive and provide learning experiences with immediate practical results. Topics covered by the courses include:

- ☐ Facilitative Management
- ☐ Accounting for Non-Financial Managers
- ☐ Performance Management
- ☐ Interpersonal Communication Skills
- ☐ Decision Making for Managers
- ☐ Project Management
- ☐ Essentials of Business Law
- ☐ Marketing
- ☐ Strategy – The Key to Potential
- ☐ Managing Planned Change

Contact:

Continuing Education
University of Manitoba
Winnipeg, Manitoba
R3T 2N2
Ph.: (204) 474-9457
1-888-216-7011 Ext.: 9457
www.umanitoba.ca

APPENDIX 6

A LISTING OF MAJOR AGRICULTURE PROGRAMS ACROSS CANADA

HOGS

Saskatchewan: Credit

Program name: Animal & Poultry Science Program

Completion: Bachelor of Science in Agriculture

Length: 4 years

Cost: Approx. \$3,800 per year

Entrance requirements: High School diploma with minimum overall average of 65%

Overview: Programs are designed to give students a broad knowledge of animal and poultry production as well as the application of modern technology within agriculture systems. Opportunities for graduates cover a wide range of endeavors. In government positions, graduates can help draft regulations governing the agriculture industry, or work directly in research. Other traditional employment can be found with feed manufacturers, animal breeding companies, meat packers, pharmaceutical companies, consulting firms, universities or in primary production. An agricultural science degree is also the gateway to a multitude of possibilities in the growing agricultural biotechnology industry.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Animal & Poultry Science (306) 966-4972

www.ag.usask.ca/departments/ansc/index.html

Additional Information: Co-op program available

Program name: Animal Science Diploma Program

Completion: Diploma in Agriculture

Length: 2 years

Entrance requirements: High School diploma or special mature admission

Overview: The objectives of the Diploma in Agriculture program are:

- To educate students to become knowledgeable and skilled managers of agricultural operations,
- To prepare them for careers in agribusiness and the value-added sector of the agricultural economy, and
- To prepare them to become effective community leaders.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: College of Agriculture (306) 966-7881

www.ag.usask.ca/academic/certdipl/diploma/

Program name: Agriculture Production

Completion: Certificate

Length: 22 weeks

Cost: \$1670 plus books and supplies

Entrance requirements: Grade 10 + entry test + interview, or special admission

Overview: The program provides knowledge and skill development related to all aspects of a farming enterprise. It meets the needs of farmers, future farmers, farm employees and agribusiness employers.

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004

www.siastr.sk.ca/

Program name: Pork Production Technician Program

Program type: In-barn training

Completion: Journey person certification

Length: 2 years

Overview: Today's pork industry requires skilled employees. To meet this need, the Pork Production Technician Program is designed for those employees working in a pork production unit who want to enhance and expand their existing skills.

Provider: SIAST

Contact: SIAST (306) 798-5004

www.siastr.sk.ca/

Saskatchewan: Non-Credit

Program name: Agriculture Business Certificate Program (ABC)

Program type: Home study

Completion: Agriculture Business Certificate

Length: 6 courses at your own pace – up to one year to complete each course

Cost: \$225 per course

Overview: This program is ideal for those working in the agriculture management sector, such as elevator, feedlot, farm service centre, and corporate farm managers. Complete 6 courses in one of the following streams: Crop Production, Livestock Production, or Feedlot Management.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: PorkPLAN

Program type: Excel computer program and usage course

Overview: PorkPLAN is a program for business planning and financial analysis of pork production operations. It simulates the profitability of an operation by using the production and financial inputs of an operation. It can be used to calculate historical production costs, current production costs, and simulate future production costs. It can be used to calculate simple annual financial projections or detailed monthly financial

projections. There are two PorkPLAN models available, one for existing operations and one for new operations planning to be built.

Provider: Sask Ag & Food

Contact name: Brad Marceniuk (306) 933-5098

email: bmarceniuk@agr.gov.sk.ca

Program name: Profit Management in the Hog Industry

Program type: CD-ROM

Cost: \$25

Overview: A manual and CD-Rom kit allowing the user to input production/financial numbers and various marketing options to determine hog profit and risk.

Provider: AIMS & Sask Ag & Food

Contact name: Brad Marceniuk (306) 933-5098

email: bmarceniuk@agr.gov.sk.ca

Additional Info: This program is available but is not being actively promoted or reproduced due to low demand.

Program name: Saskatchewan Pork Industry Symposium

Program type: Annual conference with seminars

Length: 2 days + one pre-conference day

Cost: \$135, \$35 for pre-conference day

Overview: This two day conference offers seminars covering all aspects of the pork industry. The pre-conference program is a stock person's seminar.

Location: Saskatoon, Saskatchewan

Provider: Sask Ag & Food & SaskPork

Contact: SaskPork (306) 244-7752

www.saskpork.com/main.html

Program name: Pork Expo

Program type: Annual tradeshow

Length: 2 days

Cost: Free

Overview: This two day trade show attracts exhibitors from all aspects of the pork industry. Excellent for people just getting into the business. Are some seminars held during the two days?

Location: Saskatoon, Saskatchewan

Provider: Sask Ag & Food & SaskPork

Contact: SaskPork (306) 244-7752

www.saskpork.com/main.html

Program name: Pork Artificial Insemination / Reproductive Seminar

Length: 1 day or evening

Cost: \$10 - 50

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Overview: This seminar is usually offered on an annual basis and can change from year to year. High profile speakers have been brought in the past. May focus on new and emerging technologies this year.

Location: Saskatoon and possibly various other locations throughout Saskatchewan

Provider: Sask Ag & Food

Contact name: Tara Jaboeuf (306) 933-5096

email: tjaboeuf@agr.gov.sk.ca

Program name: Occupational Health and Safety for the Pork Industry – Level I & II

Length: 2 days for each level

Entrance requirements: Level I is a requirement for Level II

Directed to: Occupational health committee members

Overview: Level I focuses on the Occupational Health and Safety Act and Regulations to help explain the responsibilities of occupational health committees. This includes hazard identification and controls, recommendations to use in dealing with concerns and when investigating refusals to work under Section 23 of the Act. Level II helps occupational health committee members and employers to plan effective workplace inspection and accident investigation programs. It emphasizes planning to identify and control hazards.

Location: Saskatoon, Saskatchewan

Provider: Sask Ag & Food & Sask Labour

Contact name: Tara Jaboeuf (306) 933-5096

email: tjaboeuf@agr.gov.sk.ca

www.labour.gov.sk.ca/safety/index.htm

Program name: Accountable Leadership in your Barn

Program type: Seminar

Length: 1 day

Directed to: Pork industry people who play a leadership role

Overview: This workshop is about learning what it means to be an accountable leader. Accountability is ultimately about trust, ownership, meaningful involvement, and commitment to results.

Location: Saskatoon, Saskatchewan

Provider: DNL Farms Consulting Services

Contact: Don or Nancy Lidster, White Fox, SK (306) 276-5761

email: dnlfarms@sk.sympatico.ca

www3.sk.sympatico.ca/lidsdo/

Program name: Effective Pig Handling

Program type: Classroom & in-barn

Length: 1.5 days

Directed to: Pig handlers

Overview: The manner in which pigs are handled has a major impact on both the behaviour and productivity of the pigs and on the efficiency and satisfaction of the people working with them. Gentle handling and a positive attitude are essential to good stockmanship, but knowledge of the human / pig dynamics must also be understood and

practiced if we are to avoid and work through situations where pigs are not moving as we need them to.

Provider: DNL Farms Consulting Services

Contact: Don or Nancy Lidster, White Fox, SK (306) 276-5761

email: dnlfarms@sk.sympatico.ca

www3.sk.sympatico.ca/lidsdo/

Program name: Pig Production Training (PPT) Effective Training Course

Length: 10 hours

Directed to: Pork industry training staff

Overview: To enable training staff to understand and practice the skills of good instruction and to be able to use the PPT Pig Skills Manuals to improve the skills and knowledge of others.

Provider: DNL Farms Consulting Services

Contact: Don or Nancy Lidster, White Fox, SK (306) 276-5761

email: dnlfarms@sk.sympatico.ca

www3.sk.sympatico.ca/lidsdo/

Program name: Effective Delegation

Program type: Seminar

Directed to: Pork industry people who play a leadership role

Overview: Proper delegation probably makes us more valuable to our company and ourselves than any other activities we do on our farms. Delegation is not a simple task. It requires the melding of the skills of communicating, motivating, conflict resolving and time managing.

Provider: DNL Farms Consulting Services

Contact: Don or Nancy Lidster, White Fox, SK (306) 276-5761

email: dnlfarms@sk.sympatico.ca

www3.sk.sympatico.ca/lidsdo/

Program name: Pig Production Training (PPT) Skills Manuals

Program type: Manuals

Overview: PPT Skills Manuals provide a system for on-farm training in the practical and observational skills involved in pig production. Aimed at new stock people with little or no experience of pigs, they give a carefully structured and consistent approach to teaching all the essential tasks from management of the incoming gilt to finishing department routines.

Provider: DNL Farms Consulting Services

Contact: Don or Nancy Lidster, White Fox, SK (306) 276-5761

email: dnlfarms@sk.sympatico.ca

www3.sk.sympatico.ca/lidsdo/

Program name: Pig Production Training (PPT) Pig Management Courses

Program type: 6 classroom-based courses

Length: 1 day per course

Overview: These courses deal with all aspects of management from the time the gilt is introduced into the barn until the finished pig leaves to market. Courses include:

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Increasing piglet survival, Successful nursery management, Maximizing finisher output, Maximizing sow herd output, Feeding and nutrition of the breeding pig, effective breeding and gestation management

Provider: DNL Farms Consulting Services

Contact: Don or Nancy Lidster, White Fox, SK (306) 276-5761

email: dnlfarms@sk.sympatico.ca

www3.sk.sympatico.ca/lidsdo/

Program name: Air Quality and Odour Management Seminar

Length: 3 hours

Cost: Free

Directed to: Hog barn operators

Location: Saskatoon, Saskatchewan

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Feed Quality and Evaluation Seminar

Length: 3 hours

Cost: Free

Directed to: Hog producers

Location: Saskatoon, Saskatchewan

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Advanced Production Analysis

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: Good planning and consistent assessment of production is essential for ensuring predictable, effective performance and profitability. Swine production managers must understand the value of planning facilities and pig flow to enhance profitability. They must know which parameters are useful indicators of a successful unit and how to monitor and assess the indicators. This course will teach the students the principles of effective production analysis. Participants will learn that production planning is essential for effective monitoring and analysis. They will learn the basics of production planning and how production analysis is used to determine the effectiveness of the production plan. Students will also work with various monitoring and analysis tools and techniques.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Barn Environment Systems

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: This course will provide participants with an understanding of the heating and ventilation systems within their barns as well as provide them the tools with which to manage and troubleshoot their systems. The principles regarding head balance with the animal's body, between the animal and the environment and between the room and the external environment will be covered. Using systematic approaches to troubleshooting will assist barn managers in determining the cause of basic barn ventilation problems, the source and the resolution. The importance of maintaining troubleshooting records will enable the manager to refer to past problems as well as solutions.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Managing Human Resources

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: This course guides the student to understand the underlining theories and principles of Human Resource management. Through case studies, small group activities and individual exercise planning, the student will gain an understanding of correct hiring procedures, orientation procedures for new staff, continuous performance reviews and the termination process.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Managing Piglet Feeding

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: During this course participants will examine applicable management of feeding piglets in the farrowing and nursery rooms. They will assess the affect of the environment on feed intake and learn the importance of forecasting feed costs for a nursery. Standard Operating Procedures for preparing the nursery for piglets will be developed. Participants will also examine their production targets and feedback.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Herd Health

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: This course challenges the participants to make sound management decisions regarding the health of their herds based on their ability to gather facts, interpret data and critically assess information. Participants will be given real life herd health problems and will work as a group or as an individual to search for solutions. The challenge that will ultimately face the participants is to find long-term solutions that will not cost money.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Grow/Finish Feeding (UNDER DEVELOPMENT)

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: Participants will gain an understanding of the concepts surrounding the management of feeding and what is under their influence to improve the efficiency of their production. Factors associated with the animal, feed and environment and how it affects feed intake and growth will be examined, as well as the importance of growth composition, nutrient requirements and feeding methods. Participants will compare their production feedback with industry standards to set attainable goals.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Being an Effective Manager

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: This course guides the student to becoming an effective personnel manager. Students will assess and understand their own management styles and gain an understanding of the role of a manager. Interpersonal communication will compose a large part of this course with problem solving and conflict management being emphasized. Students will learn how to create and manage work groups within a hog production unit.

Location: as needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Environmental Management

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: This course assists the owner/operator or manager to develop sound environmental management practices and procedures. The focus is on the operational responsibilities as opposed to siting/location issues. The participants will develop a good understanding of the legislation and its impact on their production unit. By using tools described in the course the manager can monitor environmental impact. Emergency plans, corrective action and standard operating procedures will be developed.

Location: as needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Conflict Resolution

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: Conflict in an organizational setting is unavoidable, but it can be managed productively to result in a win/win fashion. Individual strategies for resolving conflict are identified and assessed in relation to the various situations arising in the workplace. Through assessment, communication and problem solving, participants will learn how to handle conflict in a respectful and collaborative manner.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Reproductive Management

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Overview: The course will be presented as four modules. Module 1 will deal with gilt nutrition and management from 20kg live weight through to breeding. Module 2 with feeding and nutrition of the pregnant sow. Module 3 will deal with feeding and management of the lactating sow and Module 4 with feeding and management of the weaned sow.

Location: as needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Understanding Swine Behaviour

Program type: Delivered on demand

Cost: \$280

Directed to: Hog producers

Saskatchewan Council for Community Development

Overview: The course covers the behavior of pigs during each phase of the production cycle, with an emphasis on demonstrating the relationship between management practices and pig behavior. Additional sections will examine social behavior, the development and control of behavioural vices and pig transport. The animal welfare issue will be examined, using the "Five Freedoms" as a basis for identifying important issues within the industry.

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Program name: Hydrogen Sulphide Awareness

Program type: delivered on demand

Cost: \$99

Directed to: Hog producers

Location: As needed

Provider: Prairie Swine Centre

Contact: Prairie Swine Centre (306) 373-9922

adminsrv.usask.ca/psci

Canada: Credit

Program name: Animal and Poultry Health

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: A study of health and disease in animals and poultry, emphasizing disease prevention practices. Discusses infectious agents, medications and their administration, and routine management procedures - castration, dehorning, hoof care, sick animal care and management, sanitation and use of diagnostic labs. Includes "Animal and Poultry Health" video.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Animal Diseases and Parasites

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: Presents a comprehensive review of over 50 common infectious diseases and over 25 parasites affecting companion animals (dogs, cats, and horses) and livestock (cattle, swine, sheep and goats). The discussion for each disease includes information on disease transmission, clinical signs, diagnosis, treatment and prevention of these

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diseases. The final chapter covers parasites affecting these animals, with an excellent discussion on parasite life cycles. A comprehensive glossary and over 60 diagrams and illustrations make this course an excellent resource. Includes "*Clinical Signs of Infectious Diseases in Domestic Animals*" videotape.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Animal Nutrition

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: Presents the sound nutritional practices essential for healthy, productive livestock. Explains how nutrient groups, like proteins and carbohydrates, are digested, absorbed and utilized; discusses symptoms of nutrient deficiencies; evaluates feeds.

Includes "*Digestive Tracts of Farm Animals*" video.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Animal Physiology

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: Provides a comprehensive overview of the physiology of domestic animals, both farm and companion. Each of the following systems - skeletal, muscular, digestive, respiratory, urinary, nervous, circulatory and endocrine - is discussed. Includes **either** the National Geographic five-part video series on physiology **or** an interactive multimedia CD titled "Body Works."

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Feed Formulations

Program type: Home study

Completion: .5 credit – diploma level course

Length: 30 - 50 hours

Cost: \$150

Overview: Covers the fundamentals of feed formulation in a feed mill. Intended for participants in the CFIA Certificate. Worth one half course toward the Ontario Diploma in Agriculture.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Feed Regulations

Program type: Home study

Completion: .5 credit – diploma level course

Length: 30 - 50 hours

Cost: \$150

Overview: If you work in the feed industry, a maze of regulations affects your daily activities. Clarifies industry regulations, explains their application and enforcement as contained in the Feeds Act and helps interpret medicating ingredient brochures, prescriptions and custom feeds. *Includes one audiotape.*

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Feed Technology

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$300

Overview: A specialized course for feed industry personnel. Discusses quality assurance and feed technology, and technical aspects of production, from receiving of ingredients through to storage and shipping of finished feeds. Explains how to recognize factors that affect quality and efficiency of feed production. *Includes "Feed Technology" video.*

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Government Regulations

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: Reviews Canadian health protection and drug laws, as well as pesticide use, handling and legislation. Emphasis is animal health products. The general intent of legislation is examined, but the course does not go into detail about acts and codes. *Includes audiotape and Health and Welfare Canada videotape, "A Matter of Confidence."*

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

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email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Livestock Production Systems

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: This course provides an overview of current management practices used in the dairy, beef, swine, poultry, sheep, goat and horse industries. Specific mention is made of housing, breeding and feeding methods, as well as animal welfare issues.

Includes "Livestock Production Systems" video.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Pharmacology

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: Comprises a study of pharmacological terminology; basic mechanisms of absorption, distribution, metabolism, excretion and actions of drugs. Includes a discussion of drug classes commonly used in veterinary medicine, including the role of the drug class in altering the function of the particular body system, and a brief review of the commonly used drugs within each class.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: A.I. & Herd Improvement

Completion: Credit

Length: 5 days

Cost: \$550

Overview: This course covers all aspects of A.I. and herd reproduction management. Lectures provide an understanding of controlled breeding and sire selection. Quality speakers share their insights on nutrition, EPD's and synchronization. Hands-on practice will allow students to experience correct A.I. techniques and semen handling. This course is a 35 hour credit course and these credits are transferable to an Olds College Diploma.

Location: Olds, Alberta

Provider: Olds College

Contact: Olds College Extension Services 1-800-661-6537 ext. 4684

www.oldscollege.ab.ca/extension/ExtensionHome.asp

Program name: Herd Health Technology

Completion: Diploma

Length: 2 years

Entrance requirements: High school diploma or mature status admission

Overview: This program focuses on the overall management of animals, including the treatment, monitoring, and prevention of health problems. Herd Health graduates are generally employed with feedlot, dairy or swine operations, and are responsible for the daily well being of the animals. This may include activities such as maintaining a nutrition regime, recognizing and treating illness, and care of the mother and offspring during and after delivery. Employment may also be found in the farm service industry.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College

www.lakelandc.ab.ca/default.htm

Program name: Livestock Production

Completion: Diploma

Length: 2 years

Entrance requirements: High school diploma or mature status admission

Overview: Studies emphasize technical understanding of range management, livestock, genetics, nutrition, soils and forages along with related business skills in accounting and computers. Graduates of this program often return to active farm operations. Opportunities for off-farm employment in the farm service industry also exist.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College

www.lakelandc.ab.ca/default.htm

CATTLE:

Saskatchewan: Credit

Program name: Animal & Poultry Science Program

Completion: Bachelor of Science in Agriculture

Length: 4 years

Cost: Approx. \$3,800 per year

Entrance requirements: High School diploma with minimum overall average of 65%

Overview: Programs are designed to give students a broad knowledge of animal and poultry production as well as the application of modern technology within agriculture systems. Opportunities for graduates cover a wide range of endeavors. In government positions, graduates can help draft regulations governing the agriculture industry, or work directly in research. Other traditional employment can be found with feed manufacturers, animal breeding companies, meat packers, pharmaceutical companies, consulting firms, universities or in primary production. An agricultural science degree is also the gateway to a multitude of possibilities in the growing agricultural biotechnology industry.

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Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Animal & Poultry Science (306) 966-4972

www.ag.usask.ca/departments/ansc/index.html

Additional Information: Co-op program available

Program name: Animal Science Diploma Program

Completion: Diploma in Agriculture

Length: 2 years

Entrance requirements: High School diploma or special mature admission

Overview: The objectives of the Diploma in Agriculture program are:

- To educate students to become knowledgeable and skilled managers of agricultural operations,
- To prepare them for careers in agribusiness and the value-added sector of the agricultural economy, and
- To prepare them to become effective community leaders.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: College of Agriculture (306) 966-7881

www.ag.usask.ca/academic/certdipl/diploma/

Program name: Agriculture Production

Completion: Certificate

Length: 22 weeks

Cost: \$1670 plus books and supplies

Entrance requirements: Grade 10 + entry test + interview, or special admission

Overview: The program provides knowledge and skill development related to all aspects of a farming enterprise. It meets the needs of farmers, future farmers, farm employees and agribusiness employers.

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004

www.siastr.sk.ca/

Program name: Beef Management

Completion: Certificate

Length: 22 weeks

Cost: \$1530 plus books and fees

Entrance requirements: Agriculture Production Program certificate or Grade 12 with two years direct farm experience, or special admission

Overview: Provides technical information, business knowledge and skill development related to beef production, processing and marketing. You will receive training in:

- beef cattle nutrition
 - handling
 - genetics
 - range and pasture management
-

- herd health
- accounting
- computers
- financial management
- business planning

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004

www.siastr.sk.ca/

Saskatchewan: Non-Credit

Program name: Agriculture Business Certificate Program (ABC)

Program type: Home study

Completion: Agriculture Business Certificate

Length: 6 courses at your own pace – up to one year to complete each course

Cost: \$225 per course

Overview: This program is ideal for those working in the agriculture management sector, such as elevator, feedlot, farm service centre, and corporate farm managers. Complete 6 courses in one of the following streams: Crop Production, Livestock Production, or Feedlot Management.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Western Canada Feedlot Management School

Completion: Certificate

Cost: \$325

Overview: Sharpen your management skills, learn new techniques, and look at some of the opportunities that lie ahead in the cattle feeding industry, including changing production and marketing practices. Sponsored by U of S Extension Division and Animal & Poultry Science, Sask Agriculture and Food, and Saskatchewan Cattle Feeders Assoc.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Additional Info: This program is currently under development.

Program name: Green Certificate Farm Training Program

Program Type: Mostly on-the-job apprenticeship-type training

Completion: Green Certificate

Cost: No cost; requires a time commitment from trainer and trainee.

Overview: This is apprenticeship-style training and relies on experienced farm operators to do the on-farm training. (The program provides a structured training plan for trainers to follow.) Trainees have the opportunity to have their acquired skills certified when enrolled on the program. Other farm operators evaluate the competence of trainees

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before they are granted a certificate. The majority of trainees come from cow/calf operations. Feedlot registrations are increasing. To complement the on-farm training, short seminars are offered in calving management, veterinary techniques, nutrition and safe cattle handling.

Provider: Sask Ag & Food

Contact name: Jim Birch (306) 787-8191

www.agr.gov.sk.ca/docs/about_us/programs_services/gmcert2.asp

Program name: Cow-Calf Management School

Length: 3 days

Overview: This interactive session covers topics on animal nutrition, herd health, forage management, and business management.

Location: Saskatoon, Saskatchewan

Provider: Western Beef Development Centre

Contact: Western Beef Development Centre (306) 966-4147

www.wbdc.sk.ca/index.htm

Canada: Credit

Program name: Animal and Poultry Health

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: A study of health and disease in animals and poultry, emphasizing disease prevention practices. Discusses infectious agents, medications and their administration, and routine management procedures - castration, dehorning, hoof care, sick animal care and management, sanitation and use of diagnostic labs. Includes "Animal and Poultry Health" video.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Animal Diseases and Parasites

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: Presents a comprehensive review of over 50 common infectious diseases and over 25 parasites affecting companion animals (dogs, cats, and horses) and livestock (cattle, swine, sheep and goats). The discussion for each disease includes information on disease transmission, clinical signs, diagnosis, treatment and prevention of these diseases. The final chapter covers parasites affecting these animals, with an excellent discussion on parasite life cycles. A comprehensive glossary and over 60 diagrams and

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illustrations make this course an excellent resource. Includes "Clinical Signs of Infectious Diseases in Domestic Animals" videotape.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Animal Nutrition

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: Presents the sound nutritional practices essential for healthy, productive livestock. Explains how nutrient groups, like proteins and carbohydrates, are digested, absorbed and utilized; discusses symptoms of nutrient deficiencies; evaluates feeds.

Includes "Digestive Tracts of Farm Animals" video.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Animal Physiology

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: Provides a comprehensive overview of the physiology of domestic animals, both farm and companion. Each of the following systems - skeletal, muscular, digestive, respiratory, urinary, nervous, circulatory and endocrine - is discussed. Includes either the National Geographic five-part video series on physiology or an interactive multimedia CD titled "Body Works."

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Feed Formulations

Program type: Home study

Completion: .5 credit – diploma level course

Length: 30 - 50 hours

Cost: \$150

Overview: Covers the fundamentals of feed formulation in a feed mill. Intended for participants in the CFIA Certificate. Worth one half course toward the Ontario Diploma in Agriculture.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Feed Regulations
Program type: Home study
Completion: .5 credit – diploma level course
Length: 30 - 50 hours
Cost: \$150

Overview: If you work in the feed industry, a maze of regulations affects your daily activities. Clarifies industry regulations, explains their application and enforcement as contained in the Feeds Act and helps interpret medicating ingredient brochures, prescriptions and custom feeds. *Includes one audiotape.*

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Feed Technology
Program type: Home study
Completion: Credit – diploma level course
Length: 60 - 100 hours
Cost: \$300

Overview: A specialized course for feed industry personnel. Discusses quality assurance and feed technology, and technical aspects of production, from receiving of ingredients through to storage and shipping of finished feeds. Explains how to recognize factors that affect quality and efficiency of feed production. *Includes "Feed Technology" video.*

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Forages
Program type: Home study
Completion: Certificate – diploma level course
Length: 60 –100 hours
Cost: \$300

Overview: Forages play an integral role in crop-livestock systems. Part I: Species and Establishment discusses the evolution of forage production, livestock digestion processes, legumes, grasses, establishment and maintenance of stands, root reserves and winter survival, and forage quality. Part II: Management discusses harvest systems (silage, hay and pasture), seed production and the role of forages in crop rotations. *Includes "Production and Harvesting of Forages" videotape.*

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Government Regulations

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: Reviews Canadian health protection and drug laws, as well as pesticide use, handling and legislation. Emphasis is animal health products. The general intent of legislation is examined, but the course does not go into detail about acts and codes.

Includes audiotape and Health and Welfare Canada videotape, "A Matter of Confidence."

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Livestock Production Systems

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: This course provides an overview of current management practices used in the dairy, beef, swine, poultry, sheep, goat and horse industries. Specific mention is made of housing, breeding and feeding methods, as well as animal welfare issues.

Includes "Livestock Production Systems" video.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Pharmacology

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: Comprises a study of pharmacological terminology; basic mechanisms of absorption, distribution, metabolism, excretion and actions of drugs. Includes a discussion of drug classes commonly used in veterinary medicine, including the role of the drug class in altering the function of the particular body system, and a brief review of the commonly used drugs within each class.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: A.I. & Herd Improvement

Completion: Credit

Length: 5 days

Cost: \$550

Overview: This course covers all aspects of A.I. and herd reproduction management. Lectures provide an understanding of controlled breeding and sire selection. Quality speakers share their insights on nutrition, EPD's and synchronization. Hands-on practice will allow students to experience correct A.I. techniques and semen handling. This course is a 35 hour credit course and these credits are transferable to an Olds College Diploma.

Location: Olds, Alberta

Provider: Olds College

Contact: Olds College Extension Services 1-800-661-6537 ext. 4684

www.oldscollege.ab.ca/extension/ExtensionHome.asp

Program name: Herd Health Technology

Completion: Diploma

Length: 2 years

Entrance requirements: High school diploma or mature status admission

Overview: This program focuses on the overall management of animals, including the treatment, monitoring, and prevention of health problems. Herd Health graduates are generally employed with feedlot, dairy or swine operations, and are responsible for the daily well being of the animals. This may include activities such as maintaining a nutrition regime, recognizing and treating illness, and care of the mother and offspring during and after delivery. Employment may also be found in the farm service industry.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College

www.lakelandc.ab.ca/default.htm

Program name: Livestock Production

Completion: Diploma

Length: 2 years

Entrance requirements: High school diploma or mature status admission

Overview: Studies emphasize technical understanding of range management, livestock, genetics, nutrition, soils and forages along with related business skills in accounting and computers. Graduates of this program often return to active farm operations. Opportunities for off-farm employment in the farm service industry also exist.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College

www.lakelandc.ab.ca/default.htm

Canada: Non-Credit

Program name: Cow/Calf School

Length: 2 days

Cost: \$160

Overview: As a beef producer your knowledge and skills must cover a broad range - from calf management and alternative feeding practices to disease prevention and treatment. The instructor will introduce you to the basics of cow/calf production. You'll cover nutrition, pasture management and herd health including: body conditioning scoring, stomach tubing, injections and esophageal feeder calves.

Location: Olds, Alberta

Provider: Olds College

Contact: Olds College Extension Services 1-800-661-6537 ext. 4684

www.oldscollege.ab.ca/extension/ExtensionHome.asp

Program name: Artificial Insemination for Beef and Dairy Cattle

Length: 5 days

Cost: \$345

Overview: This five-day course will teach the skills of artificial insemination necessary to utilize the techniques on your own herd or dairy farm. It combines classroom instruction with extensive hands-on practice. Topics include insemination procedures, semen handling, reproduction, anatomy, and physiology.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

www.lakelandc.ab.ca/default.htm

Program name: Calving Workshop

Length: 1 day

Cost: \$90 - 150

Overview: This course will discuss the calving process, recognizing and dealing with calving problems, post calving care and common neonatal diseases. Structure will be lecture, video, and discussion with encouragement for interaction.

Location: Vermilion, Brooks and Lac La Biche, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

www.lakelandc.ab.ca/default.htm

Additional Info: Certain courses are offered for ladies only.

Program name: Common Diseases and Treatments in Livestock for Ladies

Length: 1 day

Cost: \$90

Overview: This seminar will focus on the common diseases and disorders that a beef producer will encounter in both cows and calves during the year. Recognition of the problem and common treatments will be presented in lecture/seminar style with lots of opportunity for interaction.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

Program name: Herd Health

Length: 1 day

Cost: \$90

Overview: Herd Health procedures offers a practical approach for people who want to learn the correct techniques and various procedures necessary for today's cattle operation. This course will focus on developing a herd health program and will cover topics such as castration, dehorning, vaccinations, the administration of drugs and some of the more commonly encountered diseases in the beef herd.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

www.lakelandc.ab.ca/default.htm

Additional Info: Certain courses are offered for ladies only.

Program name: Herd Health Procedures and Common Diseases in Livestock Workshop for Ladies

Length: 1 day

Cost: \$150

Overview: Herd Health procedures offers a practical approach for people who want to learn the correct techniques and various procedures necessary for today's cattle operation. The Common Disease in Livestock component of the course will focus on the common diseases and disorders that a producer will encounter. Recognition of the problem and common treatments will be presented in lecture/seminar with lots of interaction from participants.

Location: Brooks and Lac La Biche, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

www.lakelandc.ab.ca/default.htm

Program name: Embryo Implantation for Dairy and Beef Producers

Length: 4 days

Cost: \$900

Overview: This in-depth course, four days in length, will be of interest to cattle producers who have completed an artificial insemination course. Participants are required to have bred approximately 40 cows per year. Lakeland College offers excellent facilities and use of a large livestock base to develop your skills.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

www.lakelandc.ab.ca/default.htm

Program name: Hoof-trimming for Cattle

Length: 3 days

Cost: \$400

Overview: Basics of hooftrimming, the tools used and their safe and efficient use are covered, as well as how to maintain safe animal handling procedures. In addition, corrective trimming techniques will be demonstrated. Students will be given the opportunity to practice hoof trimming on specimens and live animals during the laboratory portion of this course.

Location: Vermilion, Alberta

Provider: Lakeland College

Contact: Lakeland College Continuing Education 1-800-661-6490

www.lakelandc.ab.ca/default.htm

CHRISTMAS TREES:

Saskatchewan: Credit

Program name: Prairie Horticulture Certificate Program

Program type: Home Study

Completion: Prairie Horticulture Certificate

Length: 8 courses of 60 – 80 hours each

Cost: \$216 – 470 per course plus materials

Entrance requirements: Regular Admission – Grade 12; can also register for special or probationary admission

Directed to: Designed specifically for use in the Prairie Provinces

Overview: There are four streams of study: Fruit and Vegetable Production; Greenhouse Crop Production; Landscaping and Arboriculture; Nursery Crop Production. Includes an Arboriculture class that covers principles and “how to’s” on installation, care, and maintenance of trees and shrubs.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Vocational Forestry

Completion: Statement of Achievement

Overview: Program places strong emphasis on practical training. Trains students for employment in the forest harvesting industry including planting, thinning, conventional and mechanical harvesting, and processing a variety of forest value added industries.

Location: Offered throughout the province on a contractual basis

Provider: SIAST Woodland Campus

Contact: SIAST Woodland Campus (306) 953-7000

www.siastr.sk.ca/

Program name: Value Added and Agroforestry Resource Manual

Program type: Resource Manual

Cost: \$65

Overview: The Etomami Valley REDA has completed a 550 page Resource Manual outlining the opportunities in the area of Value-Added specialized forest products and Agroforestry. Over 50 development ideas are analyzed and assessed in their entirety with sections including: safety, resources of the region, special forest products, wildcrafting, products of wood, reforestation, marketing, farm wood lots and private forest lands, Christmas trees.

Provider: Etomami Valley Regional Economic Development Authority

Contact: Etomami Valley REDA (306) 278-2311

email: etomami@sk.sympatico.ca

www3.sk.sympatico.ca/erea/index.htm

Program name: Woodlot Management Guide for the Prairie Provinces

Program type: Resource Manual

Directed to: People with limited knowledge and experience in forestry and woodlot management.

Overview: The most comprehensive guide available for woodlot owners in the Prairie Provinces. It includes four main sections on Woodlot Assessment, Multiple Land Use, Products/markets, and Woodlot Management. The Farm Woodlot Association of Saskatchewan also offers extension services.

Location: Spiritwood, Saskatchewan

Provider: Farm Woodlot Association of Saskatchewan

Contact name: Nancy Lyle (306) 883-2204

email: fwas@sk.sympatico.ca

Canada: Non-Credit

Program name: CTFO New Grower Correspondence Course

Program type: Correspondence, modules

Cost: CTFO Associate membership \$100 or CTFO Regular membership \$165 + \$175 course fee

Entrance requirements: must be a CTFO member or associate member

Overview: Modules:

- 1) History and current state of the Christmas tree industry. Types of Christmas trees in Ontario and North America.
 - 2) Marketing - Overview of approaches, quality is crucial, local market size, competition, location, planning harvest sizes, pricing strategies, building your clientele, satisfying your customers.
 - 3) Production - Soil types, drainage, topography, climate, preparation, planning, layout, tree varieties, seedling quality, types and suppliers, crop protection, timing and nature of operations, equipment.
 - 4) Financial - Scale of operations, typical investments in dollars and labour per crop, marketing costs.
-

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5) Environmental issues - spin-off benefits of trees, crop-protection chemicals, "organic" methods, environmental farm plans/incentives.

6) Government issues - farm taxes, pesticide permits, GST options, income tax.

7) Following through - reading journals, attending industry events, making adjustments.

Provider: Christmas Tree Farmers of Ontario (CTFO)

Contact: CTFO (705) 429-5328

email: Christmas Tree Farmers of Ontario

www.christmastrees.on.ca/grower.html

Program name: Woodlot Management Home Study Series

Program type: Modules by mail or on-line

Length: Own pace

Cost: Free registration

Directed to: Developed for those who want to learn more about managing their woodlands.

Overview: Topics are:

- Introduction – Getting More from your Woodlot
- Principles of Forest Stewardship
- Introduction to Silviculture
- Harvesting Systems
- Stand Spacing
- Wildlife and Forestry
- Stand Establishment
- Chain Saw Use and Safety
- Woodlot Ecology
- Wood Utilization and Technology
- Woodlot Recreation
- Managing Woodlot Finances

Provider: Nova Scotia Department of Natural Resources

Contact: email: dnrweb@gov.ns.ca

www.gov.ns.ca/natr/extension/woodlot

Other: Non-Credit

Program name: Master Christmas Tree Grower's Course

Program type: Classroom

Length: 6 weeks (3 hours per week)

Cost: \$20

Overview: All phases of Fraser fir Christmas tree production will be covered beginning with looking at how to select and establish a Christmas tree plantation site. Next, the fertility needs of a Christmas tree and how to determine and identify these needs will be covered. Two weeks will be spent on Integrated Pest Management practices. Areas such as pest identification, scouting methods and correct pesticide use will be covered. Weed identification, management of groundcovers and best management practices to control sediment are taught. Business management and marketing complete the course.

Location: NC State University Extension Centre

Provider: Mitchell County Extension Centre

Contact: (828) 668-4811

mitchell.ces.state.nc.us/newsletters/hort/hortjan01.html

CROPS

Saskatchewan: Credit

Program name: Crop Science Program

Completion: Bachelor of Science in Agriculture

Length: 4 years

Cost: Approx. \$3,800 per year

Entrance requirements: High School diploma with minimum overall average of 65%

Overview: The discipline of Crop Science is an applied science that concerns itself with optimizing the productivity and utilization of crop plants through use of environmentally-friendly, sustainable cropping systems. Through appropriate course selection, students can place emphasis on agronomy, biotechnology, crop physiology, crop protection, crop quality, and plant breeding and genetics.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Plant Sciences (306) 966-5855

www.usask.ca/agriculture/plantsci/cspe.html

Program name: Agronomy Program

Completion: Bachelor of Science in Agriculture

Length: 4 years

Cost: Approx. \$3,800 per year

Entrance requirements: High School diploma with minimum overall average of 65%

Overview: The Agronomy major integrates principles of crop production, soil management and economics. Agronomy is the production of field crops and soil management. The Agronomy major combines courses from Plant Science, Soil Science, Agricultural Economics and other departments which provide students with a well rounded education and prepares them for a wide variety of careers.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Plant Sciences (306) 966-5855

www.usask.ca/agriculture/plantsci/cspe.html

Program name: Agronomy Diploma Program

Completion: Diploma in Agriculture

Length: 2 years

Entrance requirements: High School diploma or special mature admission

Overview: The objectives of the Diploma in Agriculture program are:

- To educate students to become knowledgeable and skilled managers of agricultural operations,
- To prepare them for careers in agribusiness and the value-added sector of the agricultural economy, and
- To prepare them to become effective community leaders.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: College of Agriculture (306) 966-7881

www.ag.usask.ca/academic/certdipl/diploma/

Program name: Crop Production Certificate Program

Program type: Home study

Completion: Certificate in Agriculture

Length: 5 core courses and 2 electives of 60 – 80 hours each

Cost: \$288 – 360 per course

Entrance requirements: Regular admission – Grade 12; can also register for special or probationary admission

Overview: Applies scientific and economic principles to crop production practices.

Core courses include: Introductory Plant Science, Cereal Crops, Weed Control, Basic Soil Science, and Soil Management and Fertility.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Agriculture Production

Completion: Certificate

Length: 22 weeks

Cost: \$1670 plus books and supplies

Entrance requirements: Grade 10 + entry test + interview, or special admission

Overview: The program provides knowledge and skill development related to all aspects of a farming enterprise. It meets the needs of farmers, future farmers, farm employees and agribusiness employers.

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004

www.siastr.sk.ca/

Program name: Custom Harvester

Program type: On- and off-the-job learning opportunities

Overview: Provides work-based training to individuals engaged in a commercial custom harvester operation.

Provider: SIAST

Contact: SIAST (306) 798-4706

www.siastr.sk.ca/

Program name: Grain Inspector

Length: 12 weeks

Overview: Provides knowledge and skill development in inspecting, grading and certifying grain used for human and animal consumption.

Provider: SIAST

Contact: SIAST (306) 798-1026

www.siastr.sk.ca/

Program name: Pesticide Applicator

Program type: Home study

Length: 15 – 30 hours

Cost: \$110 – 160 plus books and supplies

Entrance Requirements: Minimum age – 18 years old

Overview: The Pesticide Applicator course fulfills the legislated requirements for licensing commercial pesticide applicators in Saskatchewan. It also meets the national standard for pesticide applicator training so holders of Saskatchewan applicator licenses can usually obtain a license in another province. The course content includes safety and personal protection, legislation relating to pest control, pests and their control, interpretation of pesticide labels and calculations related to pest control procedures.

Provider: SIAST

Contact: SIAST (306) 798-5004

www.siastr.sk.ca/

Program name: Introduction to Certified Organic Farming

Length: 1 day

Cost: \$60 plus books

Overview: An introduction to Certified Organic Farming in Saskatchewan. Certification agencies and standards will be discussed and analyzed to clarify what you have to do to become certified. Includes an introduction to the agronomic aspects of organic farming with respect to certification standards. The economics of organic farming and marketing procedures are examined.

Location: Saskatoon, Saskatchewan

Provider: SIAST Kelsey Campus

Contact: SIAST Kelsey Campus (306) 933-5555

www.siastr.sk.ca/

Additional Info: Funding provided through AIMS. AIMS funding will end in March, 2002. Unsure if program will continue.

Saskatchewan: Non-Credit

Program name: Agriculture Business Certificate Program (ABC)

Program type: Home study

Completion: Agriculture Business Certificate

Length: 6 courses at your own pace – up to one year to complete each course

Cost: \$225 per course

Overview: This program is ideal for those working in the agriculture management sector, such as elevator, feedlot, farm service centre, and corporate farm managers. Complete 6 courses in one of the following streams: Crop Production, Livestock Production, or Feedlot Management.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Certified Crop Protection Consultant (CCPC)

Program type: Distance education

Completion: CCPC Certificate

Length: 10 instructional modules in one year

Cost: \$400

Overview: A program for those working in sales, technical support, or customer service in the crop protection industry. The Certified Crop Protection Consultant program is a national standard for people who advise growers, distributors, and the public on crop protection products. Whether you work in sales, technical support, customer service, or media relations, if your work involves answering questions about crop protection, CCPC certification is for you.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5592

www.extension.usask.ca/index.html

Program name: This Land: Soils and Fertilizers

Program type: On-line, available starting in March, 2002

Cost: \$325

Overview: Learn all about soils and soil fertility while enjoying the enriched learning experience of on-line study. This program is ideal for professionals looking for an update or CEUs and producers.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Agronomy Training Workshop

Program type: Workshop

Length: 2 days

Saskatchewan Council for Community Development

Cost: \$295

Overview: A great professional development opportunity for extension personnel, farm supply retail staff and agronomists, insurance agents, crop scouts/consultants, crop protection research/sales staff.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Soils & Crops Workshop

Length: 2 days

Cost: \$90

Overview: Researchers present their latest findings to fellow researchers, extension staff, industry, and producers.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact name: Deneen Duncan (306) 966-5006

www.extension.usask.ca/index.html

Program name: Green Certificate Farm Training Program

Program Type: Mostly on-the-job apprenticeship-type training

Completion: Green Certificate

Cost: Free

Overview: This is apprenticeship-style training and relies on experienced farm operators to do the on-farm training. (The program provides a structured training plan for trainers to follow.) Trainees have the opportunity to have their acquired skills certified when enrolled on the program. Other farm operators evaluate the competence of trainees before they are granted a certificate. The majority of trainees come from cow/calf operations. Feedlot registrations are increasing. To complement the on-farm training, short seminars are offered in calving management, veterinary techniques, nutrition and safe cattle handling.

Provider: Sask Ag & Food

Contact name: Jim Birch (306) 787-8191

www.agr.gov.sk.ca/docs/about_us/programs_services/gmcert2.asp

Program name: Prairie Crop Protection Planner

Program type: CD-ROM

Cost: \$141.25

Overview: The Planner is a software program on CD-Rom that helps you make decisions about your crop protection options. It allows you to select products and calculate prices and quantities with ease.

Provider: University of Saskatchewan & AIMS

Contact name: U-Learn Extension Division, U of S (306) 966-5565
paridss.usask.ca/crop_planner/

Program name: Western Canadian Crop Production Show

Program type: Conference & Trade show

Length: 4 days

Cost: \$5 daily admission

Overview: Western Canada's most specialized show - from seed to harvest. The show is designed to give the grain grower the complete crop production story under one roof. Displays include soil testing, seedbed preparation, specialty crops, crop inputs, application technology, commodity marketing, and the latest services, products, and equipment used to produce crops.

Location: Saskatoon, Saskatchewan

Contact name: Saskatoon Prairieland Exhibition Park 1-888-931-9333
www.cropweek.com/wccps.htm

Canada: Credit

Program name: Weed Control in Agriculture

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Familiarizes growers with weeds and their control, using examples specific to agriculture. Examines weed biology and the five major methods of weed control: preventive, cultural, mechanical, biological and chemical. Applies this information to field crops, vegetable crops, pasture and rangeland, and non-crop land such as railway lines, hydro right-of-ways and roadsides. Emphasizes an integrated approach to weed problems. Addresses environmental concerns. *Includes "Applications of Agricultural Weed Control" and "Basics of Agricultural Weed Control" videos.*

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050
email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Forages

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Forages play an integral role in crop-livestock systems. Part I: Species and Establishment discusses the evolution of forage production, livestock digestion processes, legumes, grasses, establishment and maintenance of stands, root reserves and winter survival, and forage quality. Part II: Management discusses harvest systems (silage, hay and pasture), seed production and the role of forages in crop rotations.

Includes "Production and Harvesting of Forages" videotape.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Land & Water Resources

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Part I deals with relationships between resources and our impact on them. The use of chemical fertilizers and production of agricultural waste as potential contributors to pollution and contamination are considered, as are land degradation problems such as soil erosion, soil structural deterioration and loss of organic matter content. Part II addresses techniques and strategies for managing soil, water, nutrient and waste management techniques and strategies. Windbreaks, crop rotations, conservation tillage, effective soil drainage systems, terraces and berms are a few of the management approaches discussed. Includes "Soil Today, Food Tomorrow" and "Conservation Tillage" videotapes.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Principles and Practices of Soil Science

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$250

Overview: Covers the basics: what soil is, how it develops, how to distinguish between soil types, soil-water relationships and the role of soil in providing nutrients essential for plant growth. Discusses fertilizers, liming, manuring, and the use of soil and plant analysis to estimate fertilizer requirements.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Introduction to Soil Science and Plant Growth

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Overview: Covers soil formation, physical and chemical soil properties, soil water, soil life, composting, fertilizers, essential plant nutrients, soil and tissue tests, media and container production. Numerous practical horticultural examples are used to illustrate soil properties.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Additional Info: Currently under production

Program name: Seed and Grain Technology Diploma

Completion: Diploma

Length: 2 years

Entrance requirements: High school diploma

Overview: This program will teach you the valuable skills of seed and grain; production, handling, processing, transportation, quality assessment and marketing. Through hands-on training you will also build a broad base of agronomy skills. The seed courses focus on production, inspection, grading and marketing of seed. The grain courses focus on the industry from the primary elevator through to the handling, transportation, inspection, grading and marketing aspects.

Location: Olds, Alberta

Provider: Olds College

Contact: Olds College 1-800-661-6537

email: info@admin.oldscollege.ab.ca

www.oldscollege.ab.ca/index.asp

Additional Info: If you already hold a degree or diploma in an agronomy-based program, you may qualify for full credit for the first year, enabling you to complete this diploma in eight months. A Co-op program is available.

GREENHOUSE & NURSERY:

Saskatchewan: Credit

Program name: Horticulture Program

Completion: Bachelor of Science in Agriculture

Length: 4 years

Cost: Approx. \$3,800 per year

Entrance requirements: High School diploma with minimum overall average of 65%

Overview: Horticulture includes the breeding and improvement, production and utilization of fruits, vegetables, herbs, flowers and ornamentals and the management of both indoor and outdoor plantings and recreational facilities. Students in the Horticulture major develop professional skills leading to employment opportunities in crop production, industry support, education and government. The curriculum is designed to provide students with a sound basis in plant sciences augmented with specific knowledge of improvement, production and utilization of Horticultural crops.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Plant Sciences (306) 966-5855

www.usask.ca/agriculture/plantsci/cspe.html

Additional Information: Co-op program available

Program name: Prairie Horticulture Certificate Program

Program type: Home Study

Completion: Prairie Horticulture Certificate

Length: 8 courses of 60 – 80 hours each

Cost: \$216 – 470 per course plus materials

Entrance requirements: Regular Admission – Grade 12; can also register for special or probationary admission

Directed to: Designed specifically for use in the Prairie Provinces

Overview: There are four streams of study: Fruit and Vegetable Production; Greenhouse Crop Production; Landscaping and Arboriculture; Nursery Crop Production.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Pesticide Applicator

Program type: Home study

Length: 15 – 30 hours

Cost: \$110 – 160 plus books and supplies

Entrance Requirements: Minimum age – 18 years old

Overview: The Pesticide Applicator course fulfills the legislated requirements for licensing commercial pesticide applicators in Saskatchewan. It also meets the national standard for pesticide applicator training so holders of Saskatchewan applicator licenses can usually obtain a license in another province. The course content includes safety and

Saskatchewan Council for Community Development

personal protection, legislation relating to pest control, pests and their control, interpretation of pesticide labels and calculations related to pest control procedures.

Provider: SIAST

Contact: SIAST (306) 798-5004

www.siastr.sk.ca/

Saskatchewan: Non-Credit

Program name: Master Gardener Program

Completion: Master Gardener Certification

Length: Program consists of home study, workshops and internships

Cost: \$400

Overview: If you like to garden, would like access to current horticultural information, enjoy socializing with adults who share your interests, are willing to share your knowledge and experience with your community and would like to combine travel with fun and education, then the Master Gardener Program is for you.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5546

www.sfn.saskatoon.sk.ca/science/mgarden/index.html

Program name: Saskatchewan Greenhouse Growers Conference & Trade Show

Length: 2 days

Cost: \$110

Overview: Conference includes seminars covering various aspects of the greenhouse industry. Trade show includes many industry representatives.

Location: Saskatoon, Saskatchewan

Provider: Saskatchewan Greenhouse Growers Association & Sask Ag & Food

Canada: Credit

Program name: Commercial Floriculture

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 – 100 hours

Cost: \$250

Overview: Growing plants in the greenhouse is an exacting art. Details the propagation and culture of some of the important commercial crops of the floriculture industry, including chrysanthemums, carnations, roses, snapdragons, pot plants and bulbs, and bedding and foliage plants.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Greenhouse Management

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Provides the basic components of greenhouse management. Topics include greenhouse structures, heating and cooling systems, greenhouse soils, light, temperature, humidity, and plant and soil-water relationships. Includes energy conservation and hydroponics. *Includes "Greenhouse Energy Management and Hydroponics" video.*

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Elementary Plant Propagation

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$250

Overview: Introduces the principles of plant propagation with reference to sexual and asexual methods of propagation, modern techniques, specialized procedures and rooting media.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: The Horticulturist I

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Begins with botany basics such as plant anatomy and the processes that occur within plants. Discusses soil functions and management. Covers turf and arboriculture, along with ecological horticulture. Includes a chapter on professionalism and public relations. *Includes "Horticulturist I" videotape.*

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: The Horticulturist II

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Specializes in the selection and culture of plant material such as evergreens, deciduous plants, herbaceous plants, plants for patios and balconies, and indoor plants.

Includes "Horticulturist II" videotape.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: The Horticulturist III

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Deals with landscape design and construction, insect, disease and weed control, and vegetable and fruit gardening. *Includes "Horticulturist III" videotape.*

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Nursery Production

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Additional Info: Revisions to this course are currently in production.

Program name: Ornamental Plant Protection

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Deals with the biology and control of diseases and insects in turf grasses, shade trees and shrubs. Concentrates on the nature and type of agents that cause ornamental plant diseases and insect pest problems. Includes the cultural control of ornamental plant pests through an understanding of the conditions that promote or lead to the problems. Focuses on the groups of important pests of conifers, broad-leaved landscape plants and turf grasses. Ideal for students with interests in horticulture ranging from greenhouse to golf course management. Includes "Ornamental Plant Protection" videotape.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Weed Control in Horticulture

Program type: Home study

Completion: Certificate – diploma level course

Length: 60 –100 hours

Cost: \$300

Overview: Provides an overview of weed control in horticultural situations, emphasizing an integrated approach to weed control using a combination of preventive, cultural, mechanical, biological and chemical methods of weed control. Weed identification and life cycles emphasized to assist the making of an informed decision about weed problems. *Includes "Identifying Weeds" video.*

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Woody Plants: Their identification and use

Program type: E-Course

Completion: Certificate – diploma level course

Length: 60 –100 hours

Overview: A Web-style video CD course package made up of five videos and a supplementary manual. Covers woody plant identification and planting design. Plant species pertain to eastern North America.

Provider: University of Guelph, Independent Studies

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca
www.uoguelph.ca/istudy/

Program name: Production Horticulture Diploma

Completion: Diploma

Length: 2 years

Entrance requirements: High school diploma

Overview: The skills taught in this two-year program focus on a broad base of practical and technical knowledge of plant production along with management and entrepreneurial skills. Students will learn how to run a greenhouse, grow specialty crops and produce, plus how to handle pest and soil problems.

Location: Olds, Alberta

Provider: Olds College

Contact: Olds College 1-800-661-6537

email: info@admin.oldscollege.ab.ca

HONEY:

Saskatchewan: Credit

Program name: General Apiculture

Completion: Credit or audit

Length: 1 term

Entrance requirements: High School diploma with minimum overall average of 65%, or audit

Overview: Introduction to the science and practice of beekeeping. Subjects include the morphology and physiology of the honeybee, beekeeping equipment, manipulation of bees, swarm control, increase, honey production, bee diseases and wintering.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Plant Sciences (306) 966-5855

www.usask.ca/agriculture/plantsci/cspe.html

Program name: Beekeeping

Program type: Most instruction provided by employer/trainer

Completion: Certificate

Length: 310 hours instruction, 28 week practicum

Overview: Provides basic skill development in operating a beekeeping enterprise.

Provider: SIAST

Contact: SIAST (306) 798-6310

www.siastr.sk.ca/

Canada: Credit

Program name: Complete Beekeeping

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: A compendium of everything you ever wanted to know about beekeeping in one central resource. Topics cover the history of beekeeping, bee biology and behavior, getting started in beekeeping, seasonal management, special management practices, harvesting and extracting, marketing, diseases, pollination and pesticide poisoning. *Includes the interactive video, "Troubleshooting in the Bee Yard", which presents problem scenarios to solve, along with solutions.*

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Canada: Non-Credit

Program name: Honey Bee Diseases and Pests

Program type: Book

Published by: Canadian Association of Apiculturists

Provider: University of Guelph

Contact name: Dr. Cynthia Scott Dupree (519) 824-4120 Ext. 2477

email: csdupree@evb.uoguelph.ca

www.honeycouncil.ca/chc-ccm/disease.html

Program name: A Guide to Managing Bees for Pollination

Program type: Book

Published by: Canadian Association of Apiculturists

Provider: University of Guelph

Contact name: Dr. Cynthia Scott Dupree (519) 824-4120 Ext. 2477

email: csdupree@evb.uoguelph.ca

www.honeycouncil.ca/chc-ccm/pollbook.html

Program name: The Honey Bee. A Guide for Beekeepers

Program type: Book

Written by: Dr. Vernon Vickery

Contact name: McCutcheons Bee Books, Armstrong, BC (250) 254-9870

Country Fields Beekeeping Supplies Ltd, Upper Coverdale, NB (506) 387-6804

Program name: Beekeeping in Western Canada

Saskatchewan Council for Community Development

Program type: Book

Editor: John Gruszka

Contact name: Alberta Beekeepers Association, Edmonton, AB (780) 489-6949

www.albertabeekeepers.org/

Program name: Biology of the Honey Bee

Program type: Book

Written by: Dr. Mark Winston

Contact name: McCutcheons Bee Books, Armstrong, BC (250) 254-9870

Country Fields Beekeeping Supplies Ltd, Upper Coverdale, NB (506) 387-6804

Program name: Pollen Grains of Canadian Honey Plants

Program type: Book

Cost: \$39.95

Written by: C.W. Crompton and W.A. Wojtas

Contact name: Canadian Communication Group, Ottawa, ON (819) 956-4802

sis.agr.gc.ca/brd/pub/1103/english/html/c1103_e.html

Program name: Proceedings of Apimondia 99

Program type: Symposium proceedings

Cost: \$10

Contact name: Canadian Honey Council, Calgary, AB

POULTRY:

Saskatchewan: Credit

Program name: Animal & Poultry Science Program

Completion: Bachelor of Science in Agriculture

Length: 4 years

Cost: Approx. \$3,800 per year

Entrance requirements: High School diploma with minimum overall average of 65%

Overview: Programs are designed to give students a broad knowledge of animal and poultry production as well as the application of modern technology within agriculture systems. Opportunities for graduates cover a wide range of endeavors. In government positions, graduates can help draft regulations governing the agriculture industry, or work directly in research. Other traditional employment can be found with feed manufacturers, animal breeding companies, meat packers, pharmaceutical companies, consulting firms, universities or in primary production. An agricultural science degree is also the gateway to a multitude of possibilities in the growing agricultural biotechnology industry.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: Department of Animal & Poultry Science (306) 966-4972

www.ag.usask.ca/departments/ansc/index.html

Additional Information: Co-op program available

Program name: Animal Science Diploma Program

Completion: Diploma in Agriculture

Length: 2 years

Entrance requirements: High School diploma or special mature admission

Overview: The objectives of the Diploma in Agriculture program are:

- To educate students to become knowledgeable and skilled managers of agricultural operations,
- To prepare them for careers in agribusiness and the value-added sector of the agricultural economy, and
- To prepare them to become effective community leaders.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: College of Agriculture (306) 966-7881

www.ag.usask.ca/academic/certdipl/diploma/

Program name: Agriculture Production

Completion: Certificate

Length: 22 weeks

Cost: \$1670 plus books and supplies

Entrance requirements: Grade 10 + entry test + interview, or special admission

Overview: The program provides knowledge and skill development related to all aspects of a farming enterprise. It meets the needs of farmers, future farmers, farm employees and agribusiness employers.

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004

www.siastr.sk.ca/

Canada: Credit

Program name: Animal and Poultry Health

Program type: Home study

Completion: Credit – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: A study of health and disease in animals and poultry, emphasizing disease prevention practices. Discusses infectious agents, medications and their administration, and routine management procedures - castration, dehorning, hoof care, sick animal care and management, sanitation and use of diagnostic labs. Includes video, Animal and Poultry Health.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Livestock Production Systems

Program type: Home study

Completion: Credit – diploma level course

Length: 60 - 100 hours

Cost: \$250

Overview: This course provides an overview of current management practices used in the dairy, beef, swine, poultry, sheep, goat and horse industries. Specific mention is made of housing, breeding and feeding methods, as well as animal welfare issues.

Includes video, Livestock Production Systems.

Provider: University of Guelph, Independent Study

Contact: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

AGRIBUSINESS COURSES:

Saskatchewan: Credit

Program name: Agribusiness Diploma Program

Completion: Diploma in Agriculture

Length: 2 years

Entrance requirements: High School diploma or special mature admission

Overview: The objectives of the Diploma in Agriculture program are:

- To educate students to become knowledgeable and skilled managers of agricultural operations,
- To prepare them for careers in agribusiness and the value-added sector of the agricultural economy, and
- To prepare them to become effective community leaders.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: College of Agriculture (306) 966-7881

www.ag.usask.ca/academic/certdipl/diploma/

Program name: Farm Business Management Certificate Program

Program type: Home study

Completion: Certificate in Agriculture

Length: 5 core courses and 2 electives of 60 – 80 hours each

Cost: \$216 – 576 per course

Entrance requirements: Regular admission – Grade 12; can also register for special or probationary admission

Overview: This certificate focuses on farm business, including accounting, marketing, financial analysis, and enterprise planning. Core courses include: Microeconomic Principles and Applications, Farm Accounting, Agricultural Marketing Principles and Institutions, Financial Analysis for Farm Business Management, Budgeting for Farm Business Management.

Location: Saskatoon, Saskatchewan

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563
www.extension.usask.ca/index.html

Program name: Microcomputers in Agriculture

Program type: Independent study, Web-based

Completion: Credit

Length: 60 – 80 hours

Overview: The overall course objective is to provide sufficient understanding of personal computer hardware and software to allow the student to use the computer as a tool in solving problems and assisting in a wide range of communications skills in the academic and business worlds. The student will be introduced to the personal computer, word processing, Excel spreadsheets, PowerPoint presentation software, communication links to file servers, mainframes and the Internet (which will incorporate CHAT and e-Mail).

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563
www.extension.usask.ca/index.html

Program name: Agriculture Production

Completion: Certificate

Length: 22 weeks

Cost: \$1670 plus books and supplies

Entrance requirements: Grade 10 + entry test + interview, or special admission

Overview: The program provides knowledge and skill development related to all aspects of a farming enterprise. It meets the needs of farmers, future farmers, farm employees and agribusiness employers.

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004
www.siastr.sk.ca/

Additional info: Not offered after September 2002.

Program name: Farm Business Management

Completion: Certificate

Length: 22 weeks

Cost: \$1530 plus books and supplies

Entrance requirements: Agriculture Production certificate or Grade 12 with two years direct farm experience, or special admission

Overview: Focuses on skill development related to successfully managing a farm business. You will receive training in:

- Farm business planning
 - Human resource management
 - Financial management
 - Production management
 - Market management
 - Income tax planning
 - Estate planning
-

Location: Regina, Saskatchewan

Provider: SIAST Wascana Campus

Contact: SIAST Wascana Campus (306) 798-5004

www.siastr.sk.ca/

Additional info: Not offered after September 2002

Program name: Farm Succession Planning

Program type: On-line

Completion: Credit – can be used towards the Farm Business Management Certificate

Cost: \$75

Overview: The course is designed to better inform producers about options they have in estate planning so that they are able to develop their own basic estate plan prior to seeking expert advice on specific legal and taxation points. Emphasis will be placed on the need for adequate estate planning at all stages of life and not just near retirement. Producers will benefit from this course by thinking and planning for the future earlier in life rather than waiting until near retirement to begin their planning.

Provider: AIMS & SIAST

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end March, 2002. Unsure if program will continue.

Saskatchewan: Non-Credit

Program name: Agriculture Business Certificate Program (ABC)

Program type: Home study

Completion: Agriculture Business Certificate

Length: 6 courses at your own pace – up to one year to complete each course

Cost: \$225 per course

Overview: This program is ideal for those working in the agriculture management sector, such as elevator, feedlot, farm service centre, and corporate farm managers. Complete 6 courses in one of the following streams: Crop Production, Livestock Production, or Feedlot Management.

Provider: University of Saskatchewan

Contact: University of Saskatchewan Extension Division (306) 966-5563

www.extension.usask.ca/index.html

Program name: Agribusiness Management Development Program: a program for entrepreneurs

Program type: Classroom

Length: 7 days

Cost: \$1250.00

Overview: The primary objective of this course is to provide agribusiness managers with skills in marketing, financial management, and leadership. Entrepreneurship and management training includes: strategic business plan development, case studies for practical application, comprehensive and highly interactive programming, sharpen analytical skills in a simulated agribusiness environment, business analysis of current trends and issues, build a sustainable economic advantage and exchange ideas with other industry leaders.

Location: Saskatoon

Provider: University of Saskatchewan

Contact name: Ann Cooney (306) 933-7026

<http://agribusiness.usask.ca>

Additional Info: AIMS provides sponsorship to Saskatchewan farmers to attend AMDP

Program name: Farm Accounting Using Computers

Program type: On-line

Cost: \$95

Overview: The primary objective of this course is to provide producers with a fundamental knowledge of various farm accounting principles and of computerized farm accounting. The course will go through the process of collecting the initial information required to start a set of accounting books, setting up the books, going through a sample year's set of transactions and doing a year-end closing.

Provider: AIMS & SIAST

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if program will continue.

Program name: Working the Web for Agricultural Information

Program type: On-line or classroom

Length: 1 day (classroom)

Cost: \$35 (on-line) or \$60 (classroom)

Overview: A customized advanced Internet workshop for farmers, farm organizations, and agribusiness. This course will provide experience and strategies to help you reduce the time spent on-line. You will learn how to find and use programs, search for commodity specific information, manage files for easy accessibility and protect your information.

Location: Classroom course offered in various locations throughout Saskatchewan

Provider: AIMS & SIAST

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if program will continue.

Program name: Creating and Maintaining an Agricultural Website

Program type: On-line

Cost: \$40

Overview: This course will show farmers, agribusiness, and farm organizations how to determine whether you need a web site and the show you how to design one effectively, set it up, register it with search engines and attract visitors. You will also create your own web site and learn how to maintain and update it. You will be able to practice your skills and the instructor will be available online to answer questions. Some familiarity with computers and the Internet is required.

Provider: AIMS & SIAST

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if program will continue.

Program name: Internet for Farmers

Program type: Classroom

Length: 1 day

Cost: \$60

Overview: This hands-on workshop is aimed at people involved in an agriculture enterprise who are new to the Internet. The workshop begins by covering the Internet, how it works and what services it offers. Students will learn to use the Netscape Electronic Mail package. Students will also learn how to use the popular Netscape World Wide Web browser. Special emphasis will be paid to agricultural uses of the web.

Location: Various locations within Saskatchewan

Provider: AIMS & SIAST

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if program will continue.

Program name: Income Tax Planning with Computers

Program type: Classroom

Length: 2 days

Cost: \$120

Overview: The primary objective of this workshop is to provide farm managers with a fundamental knowledge of the federal and provincial income tax system, in general, and farm tax planning, specifically.

Location: Various locations within Saskatchewan

Provider: AIMS & SIAST

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if program will continue.

Program name: Networking for Success: Strategic Alliances in the New Agriculture

Program type: Website from workshop

Overview: This one-day workshop helped participants understand why strategic alliances are utilized, and the impact of strategic alliances and networking on agriculture. It introduced them to the idea of forming alliances in the new agriculture and how they can contribute to business success.

Provider: The Centre for the Study of Co-operatives & AIMS

Contact: coop-studies.usask.ca/strategic/home.html

Program name: Consultant Workshop Program

Program type: Various workshops

Cost: \$150 per workshop for Saskatchewan speakers, \$200 per workshop for out-of-province speakers

Entrance requirements: Any group of ten or more persons with an agriculture focus

Overview: Workshop topics are useful and dynamic, changing with the times. The overall objective of each workshop is to upgrade farm business management skills and, whenever possible, to provide the opportunity for hands-on exercises. The program enables you to host guest speakers at a very low cost.

Location: Various locations throughout Saskatchewan

Provider: AIMS

Contact: AIMS (306) 975-8928

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if program will continue.

Program name: Managing Agricultural Records for Success (MARS)

Program type: CD-ROM

Cost: \$89

Overview: A CD-ROM designed to teach farm managers how to analyze their financial records to come up with ways of improving profitability. The CD-ROM includes three sectors of the Accounting for Success Series funded by the Canadian Farm Business Management Council and developed by the Canadian Institute of Chartered Accountants.

Provider: AIMS & Cornerstone Educational Services

Contact name: Cornerstone Educational Services, Imperial, SK (306) 963-2919
farmbooks.com/store.htm

Program name: Let's Talk... Communication and Farm Estate Planning

Program type: Video

Cost: \$15

Overview: This video highlights the importance of farm estate planning and provides useful information to assist you in achieving your objectives.

Provider: AIMS

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if video will still be available.

Length: 6 courses

Program name: Agricultural Marketing Management

Program type: 4 CD-ROMs

Cost: \$295 (or \$95 each)

Overview: Learn commodity marketing at home! A set of 4 interactive CD-ROMs, including:

1. Understanding Basis
2. Using the Futures Market
3. Introduction to Technical Analysis
4. Speculation & Money Management

Provider: AIMS

Contact name: AIMS (306) 975-8927

www.sccd.sk.ca/aims/

Additional Info: AIMS funding will end in March, 2002. Unsure if CD-Rom will still be available.

Canada: Credit

Program name: Business Management Principles

Program type: Home Study

Completion: Certificate – diploma level course

Length: 60 – 100 hours

Cost: \$250

Overview: Management of any business, whether an agricultural service industry, farm or nursery, involves many common skills. Covers the basics, including financial

analysis, planning, budgeting, resource management, financial and credit management, and marketing and production decision-making. The introduction provides an overview of world economic policies and the importance of the agricultural industry to the Canadian economy.

Provider: University of Guelph, Independent Studies

Contact name: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Communications

Program type: Home Study

Completion: Certificate – diploma level course

Length: 60 – 100 hours

Cost: \$250

Overview: Focuses on communication in the workplace. Most successful writing is the result of a process; emphasizes a step-by-step approach. Covers language skills, the writing process, business writing, making proposals, interpersonal communication and the job search.

Provider: University of Guelph, Independent Studies

Contact name: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Farm Financial Management

Program type: Home Study

Completion: Certificate – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: How to improve your financial management skills and increase farm profits. Lessons cover: farm management principles, methods of collecting and arranging farm records, the Balance Sheet, the Income Statement, tools to develop a farm plan, and farm financing. Filled with practical examples and exercises. Includes *"The Balance Sheet in Farm Financial Management"* videotape.

Provider: University of Guelph, Independent Studies

Contact name: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Marketing for Small Rural Enterprises

Program type: Home Study

Completion: Certificate – diploma level course

Length: 60 – 100 hours

Cost: \$300

Overview: A video-based course. Covers marketing principles and the collection and analysis of basic marketing information, including pricing, product, promotion and place.

Saskatchewan Council for Community Development

Features interviews with entrepreneurs and marketing consultants. Worksheets provide a blueprint for drafting a marketing plan.

Provider: University of Guelph, Independent Studies

Contact name: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Program name: Math for Farm Managers

Program type: Home Study

Completion: Certificate – diploma level course

Length: 60 – 100 hours

Cost: \$250

Overview: Features math problems encountered in everyday agriculture. Teaches arithmetic, geometry and trigonometry basics; contains comprehensive metric/imperial conversion tables; explains pH, scientific notation; illustrates probability as it relates to animal breeding. Problems illustrate practical applications used by farmers in their day-to-day decision making.

Provider: University of Guelph, Independent Studies

Contact name: Independent Study / OAC ACCESS (519) 767-5050

email: counsel@access.uoguelph.ca

www.uoguelph.ca/istudy/

Canada: Non-Credit

Program name: Competitive Advantage Program for Agriculture

Length: 3 sessions totaling 10 days

Cost: \$1,400 for first registrant from farm, \$300 for each additional registrant from same farm

Overview: This program will help you understand the strategic planning process and provide you with knowledge, tools and support to develop and implement a strategic business plan. As a result of the program you will be able to identify and build on your unique competitive advantage. The program will change the way you think about your business and the agriculture industry.

Location: Olds, Alberta

Provider: Alberta Agriculture, Food & Rural Development & Old College

Contact: Olds College Extension Services 1-800-661-6537 ext. 4684

www.oldscollege.ab.ca/extension/capa/index.asp